

Desktop Publisher's Graphics

By IMSI

PagePerfect™
Desktop Publisher's Graphics™
User's Guide

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Introducing DP Graphics



DP Graphics (Desktop Publisher's Graphics) is a powerful and versatile graphics program that you can use within PagePerfect to create and modify pictures. You access DP Graphics in PagePerfect's Picture Librarian when you select the Create or the Change command.

DP Graphics lets you draw straight lines, freehand lines, boxes, circles, and ellipses. You can fill objects with any of several patterns—even patterns you create yourself! You can also create symbols and save them for later use.

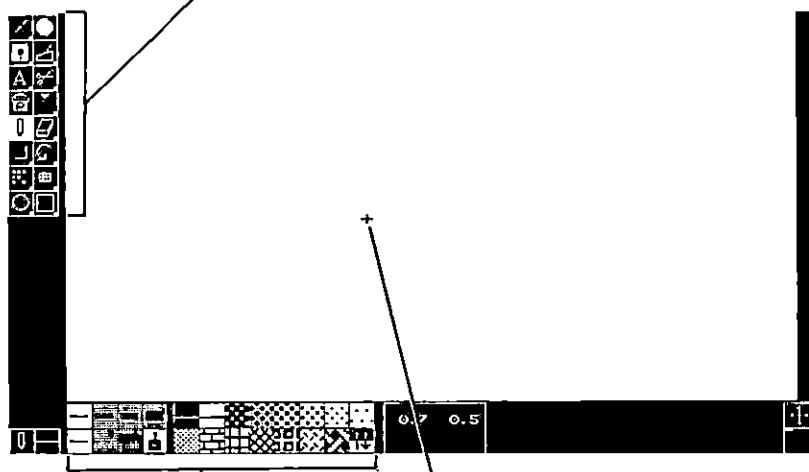
After you create a picture, you can insert text in it. The text characters can be solid, filled with a pattern, underlined, or drawn with “dropshadowing” to give labels and titles depth and impact.

THE DP GRAPHICS SCREEN

After you start DP Graphics, your screen shows a **drawing area** with various **icons** (symbols) at the left and bottom.

The drawing-tool and utility icons.
You use them to create pictures.

Your work appears here.



The control icons. You use them to
specify the effect of the drawing tools.

The cursor.

The icons at the left represent drawing tools. The icons at the bottom specify the line weights, line styles, colors, and patterns that you draw with the appropriate tool.

Near the middle of the drawing area is a **cursor**. You move the cursor using your pointer. You'll use the cursor to select an icon, to specify what the icon does, to draw in the drawing area, and to move parts of drawings around the drawing area.

To use the tool or specification represented by an icon, you select the icon by moving your pointer until the cursor is on the icon, then pressing a button on the pointer.

When the cursor is in the drawing area, moving it does what the selected icon represents. For example, when the pencil is selected, moving the cursor across the drawing area draws a freehand line.

Normally, the cursor appears as crosshairs. When the pointer is in the drawing area, its shape may change, depending on which icon is selected.

USING THIS MANUAL

This manual consists of four main sections:

- “Tutorial” takes you step-by-step through examples of basic DP Graphics operations. To make it easy for you to learn the essentials, these examples don’t cover *all* of DP Graphics’ many features—just the basic tasks that you’ll be doing most of the time in typical situations. You’ll get the most out of this tutorial if you work the examples on your computer as you read about them.
- “Working with the DP Graphics Screen” gives you an overview of how to select drawing tools and use them to create and modify objects on your screen.
- “Drawing-Tool and Utility Icons” gives the details on the tools you’ll use for drawing, plus tools that let you scan, print, and save pictures on disk.
- “Control Icons” gives the details on the tools you use to control the results of the drawing tools (such as the width of lines, and the patterns for painting areas).

Tutorial



In this tutorial, you'll learn how to:

- Start DP Graphics.
- Select a line width.
- Draw a freehand line.
- Select a pattern.
- Paint an area.
- Erase an area.
- Move an area.
- Exit DP Graphics.

STARTING DP GRAPHICS

At PagePerfect's start-up screen:

- **Press the space bar.**
- **Select PICTURE LIBRARIAN.**
- **Select the Create command (press F10).**
- **Select PAINT A PICTURE.**
- **Type *SAMPLE*, then press Enter.**

The DP Graphics screen appears on your display.

SELECTING A LINE WIDTH

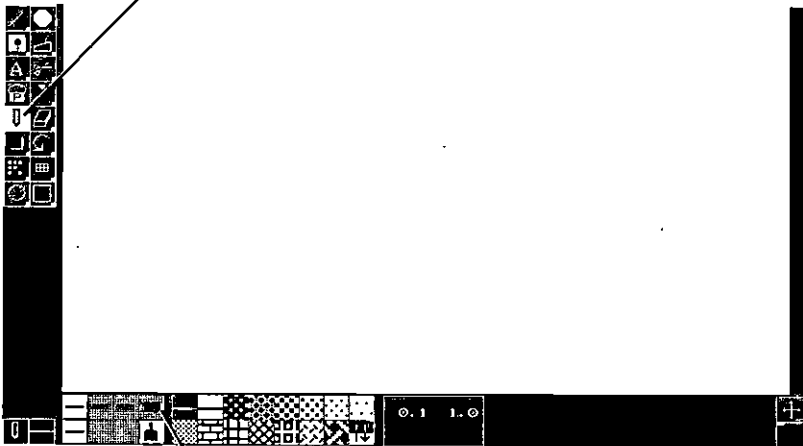
When you start DP Graphics, the pencil icon is selected, so you can use your pointer to draw a freehand line.

You'll draw a line that has a line width of 7 **pixels**. (A pixel is one of the thousands of dots that make up the display on your screen.) Before drawing the line, select the 7-pixel line width:

- **Point to the 7-pixel line-width icon.**

To "point to" an icon means to move your pointer so that the cursor is on the icon.

The pencil icon is already selected.



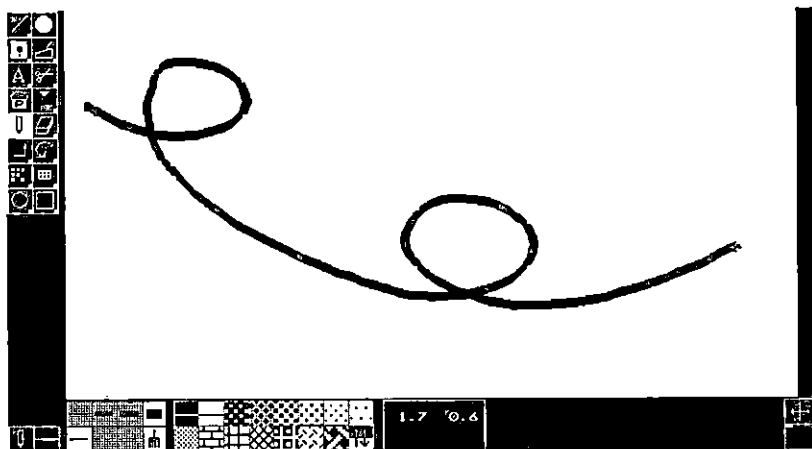
The 7-pixel line-width icon.

- **Press and release the left button on your pointer.**

The background of the icon changes from blue to yellow, signifying that you have selected this line width.

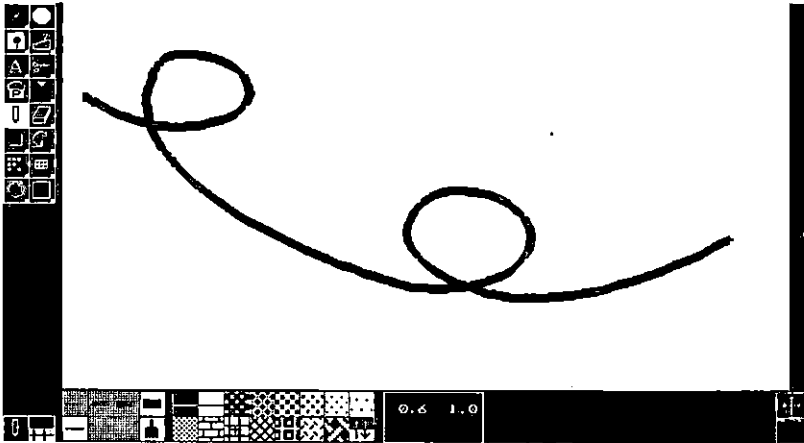
DRAWING A FREEHAND LINE

- Move the cursor into the drawing area.
- Press and hold the left button, move your pointer so that the cursor draws a looping line like that shown below, then release the button.



SELECTING A PATTERN

- Point to one of the pattern icons, then press and release the left button.



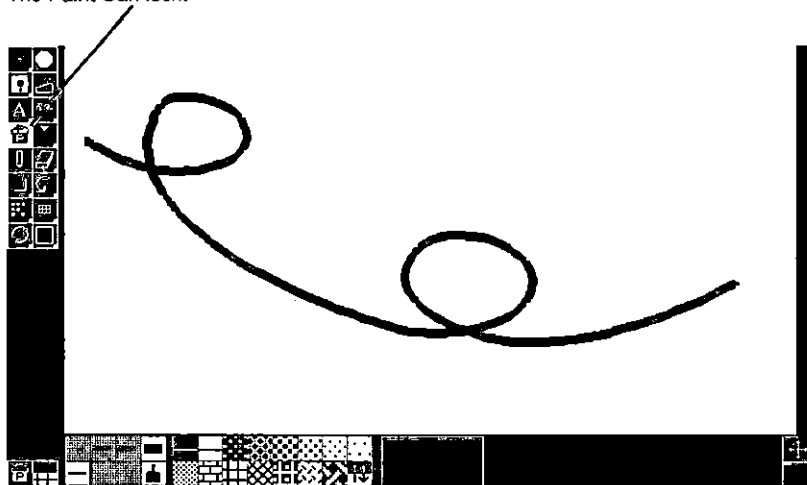
The pattern you select appears here.

You can select any of these patterns.

PAINTING AN AREA

- **Point to the Paint Can icon, then press and release the left button.**

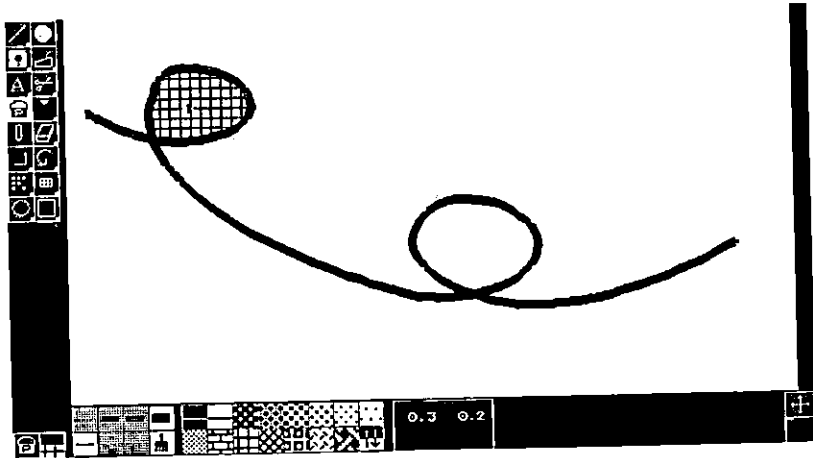
The Paint Can icon.



The drawing tool you've selected appears here.

- **Point to the first enclosed loop, then press and release the left button.**

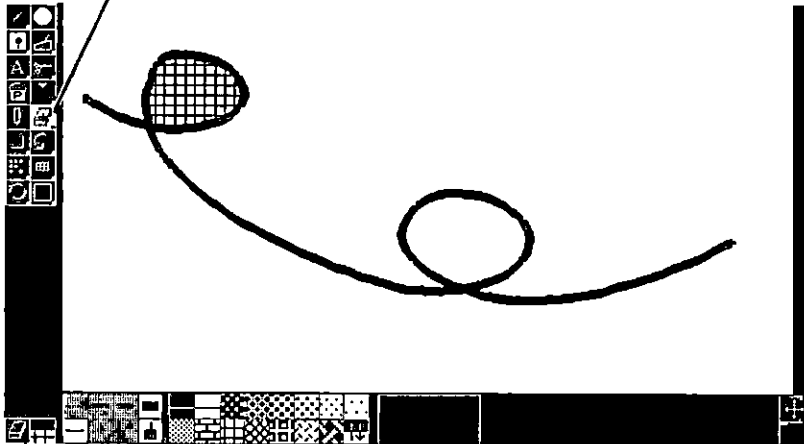
DP Graphics fills the area with the selected pattern.



ERASING AN AREA

- **Point to the Eraser icon, then press and release the left button.**

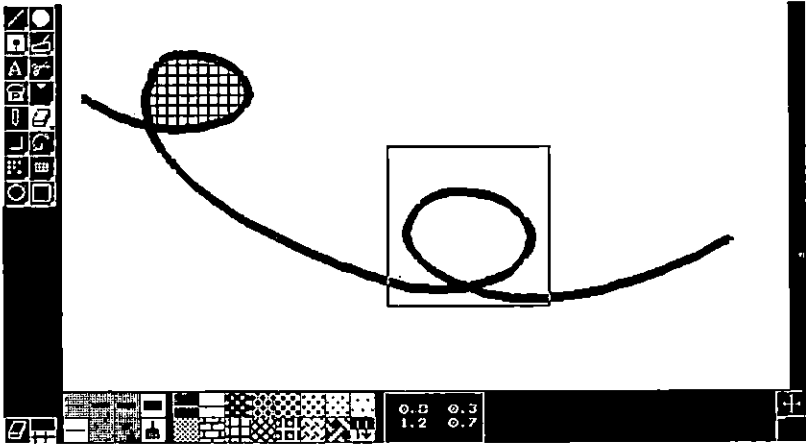
The Eraser icon.



The current tool appears here.

- **Move the cursor into the drawing area.**
The cursor takes the shape of a box.
- **Move the cursor near the upper-left of the second loop.**

- Press and hold the right button, move your pointer so that the cursor is large enough to enclose the loop, then release the button.
- If necessary, move your pointer and repeat the preceding step until the cursor encloses the loop as shown below.

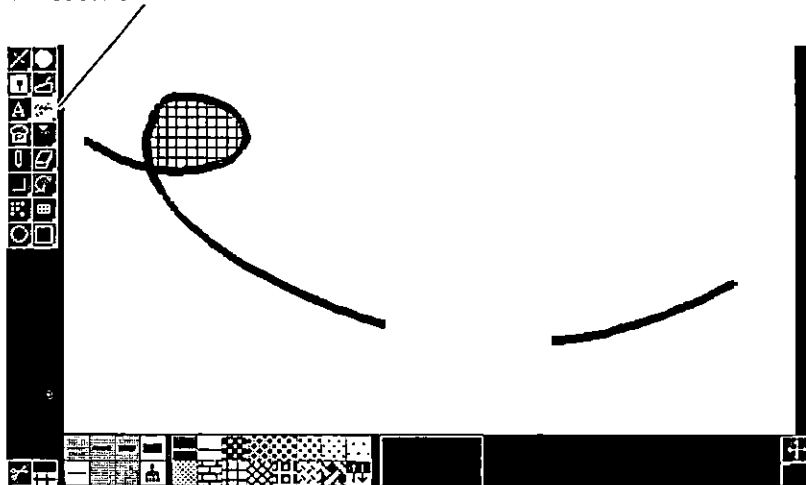


- Press and release the left button.
DP Graphics erases the area enclosed by the cursor.

MOVING AN AREA

- **Point to the Scissors icon, then press and release the left button.**

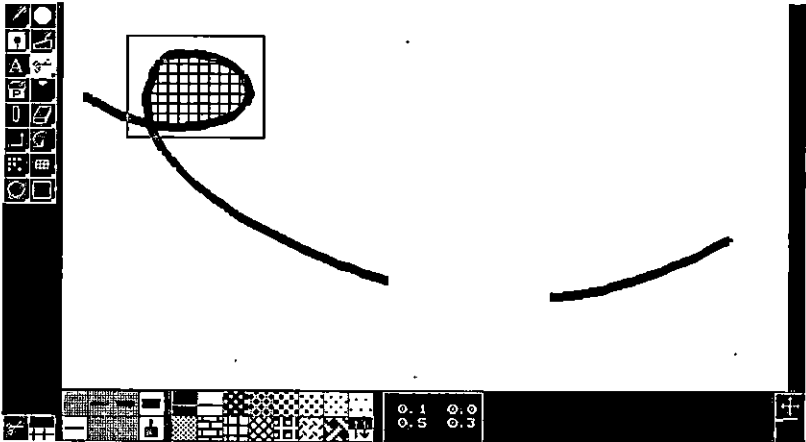
The Scissors icon.



The current tool appears here.

- **Move the cursor into the drawing area.**
The cursor takes the shape of a box.
- **Move the cursor near the lower-left of the first loop.**

- Press and hold the right button, move your pointer so that the cursor is large enough to enclose the loop, then release the button.
- If necessary, move your pointer and repeat the preceding step until the cursor encloses the loop as shown below.

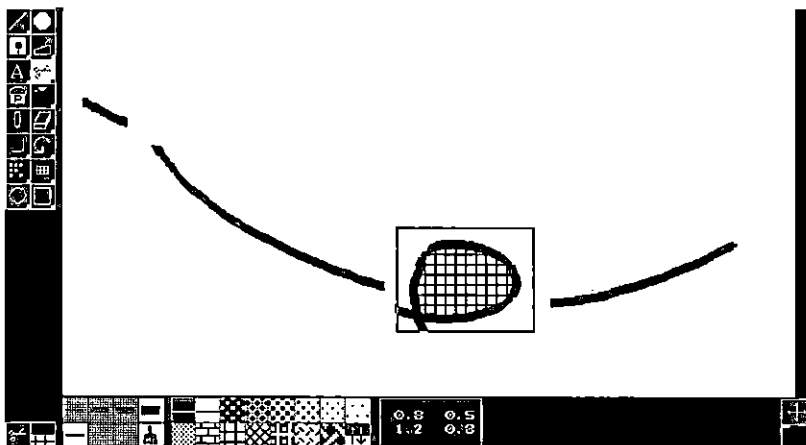


- Press and release the left button.
- Move the cursor to another part of the drawing area.

DP Graphics leaves a box around the area you're moving until the next step.

■ **Press and release the left button.**

DP Graphics moves the area.



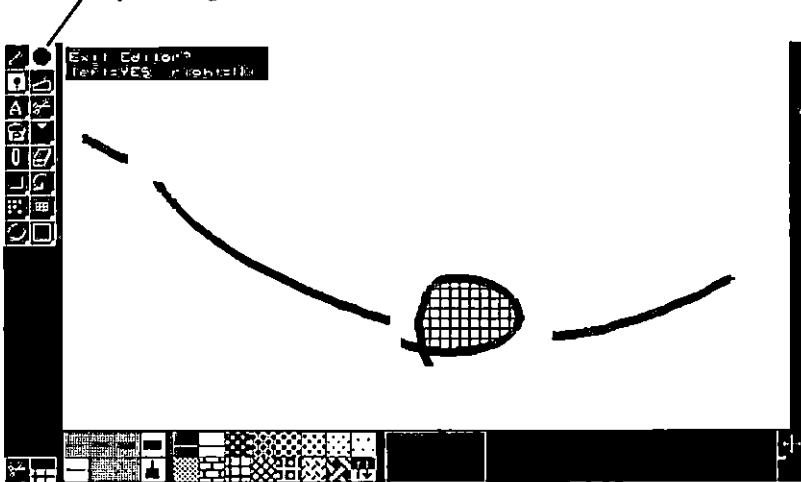
EXITING DP GRAPHICS

When you exit DP Graphics, it lets you mark an area you want to save as a PagePerfect picture.

- **Point to the Stop Sign icon, then press and release either button.**

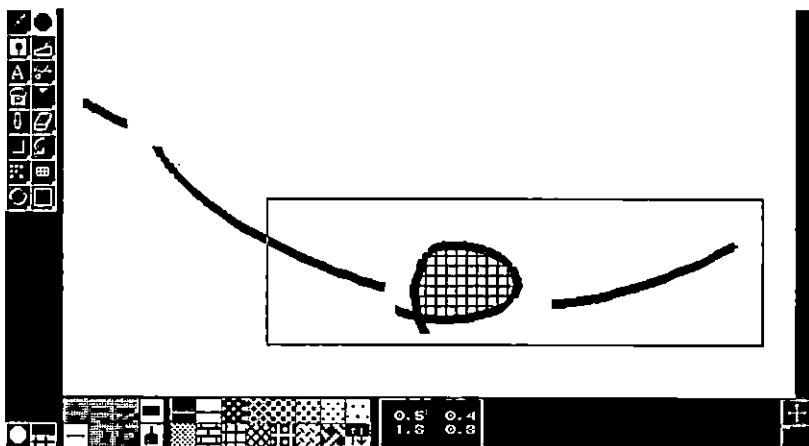
DP Graphics displays a cursor box on the screen so that you can mark the area you want to save.

Selecting this icon exits DP Graphics and returns you to PagePerfect.



- **Press the left button to confirm that you want to exit.**
- **Position the lower-left corner of the cursor box at the lower-left corner of the area you want to save.**

- **Press and hold the right button, move your pointer until the cursor encloses the area you want to save, then release the button.**



- **Press and release the left button to exit DP Graphics.**

DP Graphics saves the selected area and returns you to PagePerfect.

Congratulations—you're finished learning the basics of DP Graphics! You'll find many more features of DP Graphics described in the next three sections.

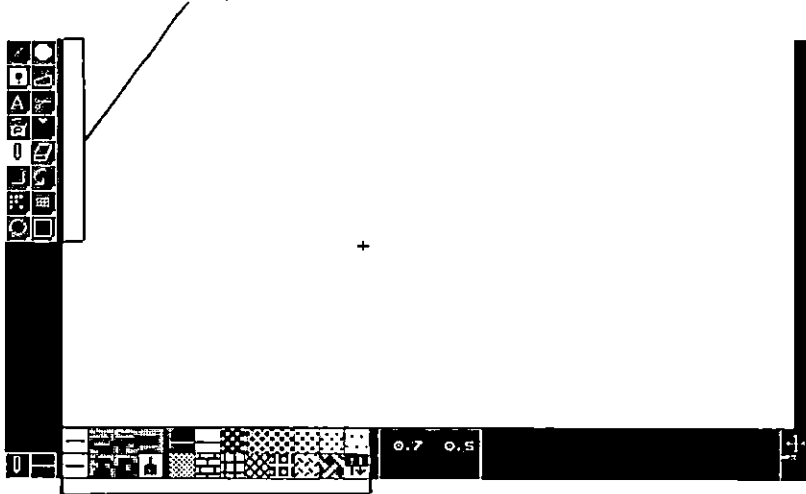
Working with the DP Graphics Screen



This section tells you what the DP Graphics icons do, how to use them, and how to move the cursor around the drawing area.

OVERVIEW OF THE ICONS

The drawing-tool and utility icons.
You use them to create pictures.



The control icons. You use them to
specify the effect of the drawing tools.

This section lists the icons, grouped according to their location on the screen. They are described in detail later in this manual, where they are listed alphabetically.

Drawing-Tool and Utility Icons



Use the Clear Screen icon to clear (erase) the screen.



Use the Stop Sign icon to exit DP Graphics and return to PagePerfect.



Use the Disk icon to do file operations such as saving pictures in files, displaying pictures from files, and deleting picture files.



Use the Scanner icon to scan a picture into the virtual page.



Use the Text icon to enter text—such as a title or label—into a picture on the screen.



Use the Scissors icon to copy or move part of a picture from one part of the screen to another, and to store or retrieve pictures or parts of pictures on disk.



Use the Paint Can icon to fill an enclosed area with a pattern (including black or white).



Use the Airbrush icon to airbrush on the screen.



Use the Pencil icon to draw freehand solid or dotted lines.



Use the Eraser icon to erase areas on the screen.



Use the Line icon to draw point-to-point, diagonal, horizontal, and vertical lines; filled polygons (triangles, rectangles, etc.); and curved lines through a series of points.



Use the Rotate icon to rotate a selected area, or to flip a selected area or the entire screen horizontally or vertically.



Use the Pixels icon to display and edit an area in great detail. You can use it also to create, store, and use symbols, and to create new patterns for filling areas.



Use the Grid icon to create a grid of lines on an area of the screen or on the entire virtual page. You can also use it to create an invisible grid for limiting drawing to certain points.



Use the Circle icon to draw circles and ellipses (elongated circles). They can be hollow, filled with a border, or filled with no border.



Use the Box icon to draw rectangles. They can be hollow, filled with a border, filled with no border, or three-dimensional.

Control Icons



The Status box shows you the drawing-tool or utility icon, the color, and the pattern that are currently selected.



Use these icons to select the line width for lines, the borders of objects (such as circles and rectangles), and text characters.



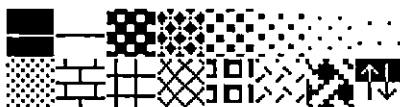
Use these icons to select the style of lines and of the borders of objects (such as circles and rectangles).



Use the Brush icon to switch the Drawing mode for the Circle, Box, Airbrush, Scissors, Line, and Curved-Line icons between continuous and discrete.



Use these icons to switch the drawing color between black and white.



Use these icons to select patterns for filling areas.



Use the Switch icon to switch all black areas on the screen or in the pattern icons to white, and switch all white areas to black.



The Coordinates box shows the distance of the cursor from the left and top edges of the virtual page.



Use the top half of the Virtual Page icon to move the display window around the virtual page.



Use the bottom half of the Virtual Page icon to switch between Window mode and Virtual Page mode, and to see what portion of the virtual page is currently visible in the display window.

USING THE ICONS

Select an Icon

To select an icon:

- Move your pointer until the cursor is on the icon.
- Press and release the *left* button.

The selected icon is highlighted.

- If the selected icon is a drawing-tool or utility icon, it appears in the left half of the Status box in the lower-left corner of the screen.
- If the selected icon represents a solid color (black or white), it appears in the top of the right half of the Status box.
- If the selected icon represents a pattern, it appears in the bottom of the right half of the Status box.

Select an Icon Option

If a small white box appears to the lower-right of an icon, the icon can perform any of several related functions. For example, you can use the Circle icon to draw either circles or ellipses, and these objects can be drawn either hollow (in outline only) or filled (with a pattern you select). Or, you can use the Disk icon either to save or retrieve a picture file or a text file.

To select an icon option:

- Move your pointer until the cursor is on the icon.
- Press and release the *right* button.

DP Graphics opens a **control box** showing the icon options.

- Move the cursor onto the option you want.
- Press and release either the left or the right button.

The selected icon option appears in the Status box in the lower-left corner of the screen.

Some control boxes contain just one set of options—you can select only one option at a time. Other control boxes contain more than one set of options—you can select more than one option at a time. If the box contains only one set of options, the box closes when you select an option. If the box contains more than one set of options, you must close it manually.

To close a control box:

- Move the cursor off of any option.
- Press and release either the left or the right button.

You can use this technique also to close a control box without selecting an option.

For most icons, you don't need to open the control box showing the options if you want to select the *first* option: selecting the icon (by pressing the *left* button) automatically selects the first option (this is called the **default** option). For certain icons, however (such as the Disk), pressing either the left or the right button opens the control box, letting you select the option you want.

Note *If you're using a mouse with three buttons, the "right button" refers to the center button.*

Clear Icons

DP Graphics lets you temporarily remove the icons from the screen so that you can work on a full-screen picture.

To clear the icons:

- Press the Tab key or the space bar.
PagePerfect clears the icons from the screen.
- Move your pointer to restore the cursor on the screen.

To restore the icons:

- Press the Tab key or the space bar again.
- Move your pointer to restore the cursor on the screen.

MOVING THE CURSOR

To move the cursor around the drawing area, just move your pointer. Each move you make with your pointer moves the cursor in exactly the same way.

Here are some shortcuts for moving the cursor using the keyboard:

- To set a top, bottom, left, or right margin, hold down the Ctrl key and press the appropriate arrow key.
- To move the cursor to the top, bottom, left, or right margin, press the appropriate arrow key.
- To center the cursor horizontally in the drawing area, hold down the Alt key and press the C key.

Drawing-Tool and Utility Icons

This section describes the drawing-tool icons and the four utility icons (Clear Screen, Disk, Scanner, and Stop Sign).

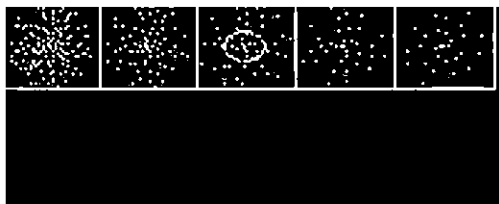
AIRBRUSH



Use the Airbrush icon to airbrush in the drawing area.

- Point to the Airbrush and press the right button.

DP Graphics opens a control box showing the airbrush densities you can select. The cursor takes the shape of a circle.



- Point to the density you want and press the left button.
- Move the cursor into the drawing area.
- Press and hold the right button while you move the cursor over the area you want to airbrush, then release the button.

Tip! You can also airbrush using the Scissors icon, with an airbrush pattern you create. See “Airbrush” under the Scissors icon for the details.

BOX

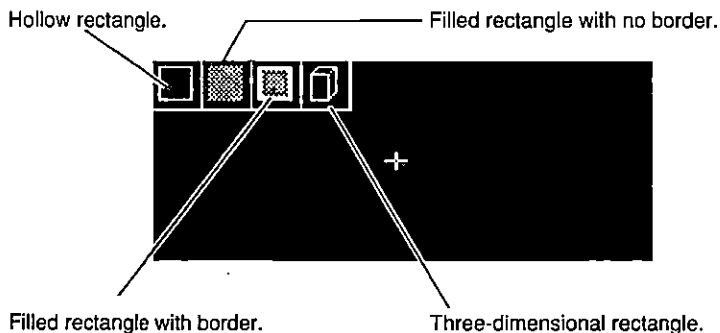


Use the Box icon to draw rectangles. They can be hollow, filled with a border, filled with no border, or three-dimensional.

The line-width, line-style, color, and pattern icons control the look of the rectangles you draw, and the Brush icon controls whether your drawing is discrete or continuous (see the “Control Icons” section).

- Point to the Box icon and press the right button.

DP Graphics opens a control box so you can select what you want to draw.



- Point to the appropriate icon, then press either button.

When any of these icons is selected, the cursor takes the shape of a small box.

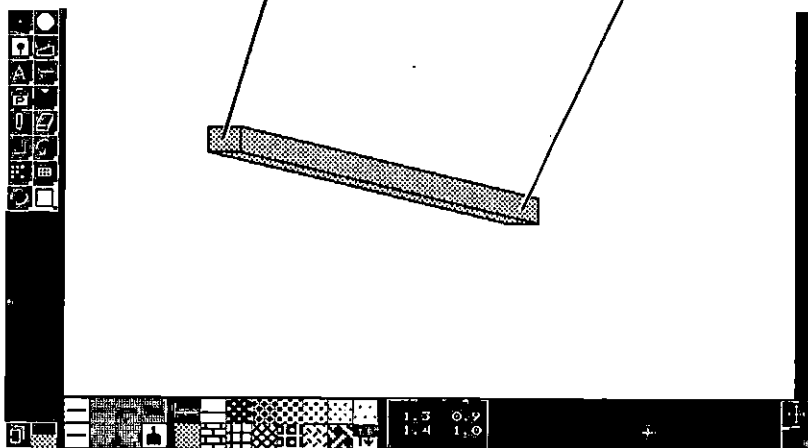
- To change the size and/or shape of the cursor, press and hold the *right* button, move your pointer until the cursor is the size and/or shape you want, then release the button.
- Move your pointer until the cursor is where you want to insert the rectangle, then press the left button.

DP Graphics inserts the rectangle in the drawing area.

- If you selected the three-dimensional rectangle, move your pointer until the cursor is at some angle from the rectangle you just created, then press the left button again.

To draw this, the left button was pressed with the cursor here ...

... then the cursor was moved here and the left button pressed again.



Note You can insert the same rectangle in more than one place (except for a three-dimensional rectangle) by pressing the left button again.

CIRCLE

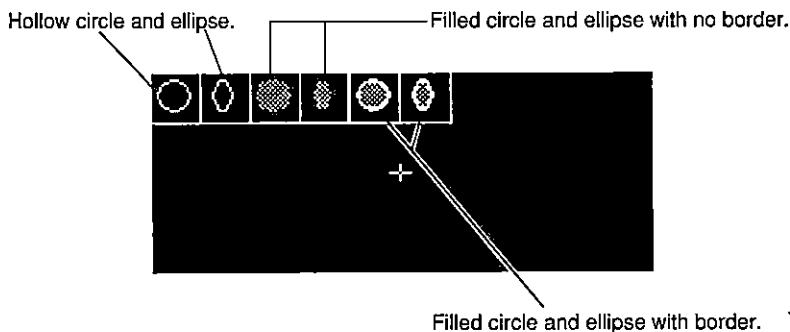


Use the Circle icon to draw circles and ellipses (elongated circles). They can be hollow, filled with a border, or filled with no border.

The line-width, line-style, color, and pattern icons control the look of the lines and polygons you draw, and the Brush icon controls whether your drawing is discrete or continuous (see the “Control Icons” section).

- Point to the Circle icon and press the right button.

DP Graphics opens a control box so you can select what you want to draw.



- Point to the appropriate icon, then press either button.

When any of these icons is selected, the cursor takes the shape of a circle (although it looks like an ellipse on the screen).

- To change the size and/or shape of the cursor, press and hold the *right* button, move your pointer until the cursor is the size and/or shape you want, then release the button.

If you selected a circle icon, the cursor changes only in size; if you selected an ellipse icon, it changes in size and shape.

- Move your pointer until the cursor is where you want to insert the circle or ellipse, then press the left button.

To insert the same circle or ellipse in more than one place, repeat the preceding step.

Note *Circles are drawn according to the aspect ratio (the ratio of height to width) of the virtual page, even if you're drawing in*

Window mode. Since the aspect ratio of the virtual page differs from the aspect ratio for the normal display window, circles will look like ellipses when you view them in Window mode. For more information about aspect ratios, see appendix B.

CLEAR SCREEN



Use the Clear Screen icon to clear (erase) the screen and the virtual page.

- Point to the Clear Screen icon and press the left button.
- Press the left button to clear the screen.

DP Graphics clears the screen and the entire virtual page.

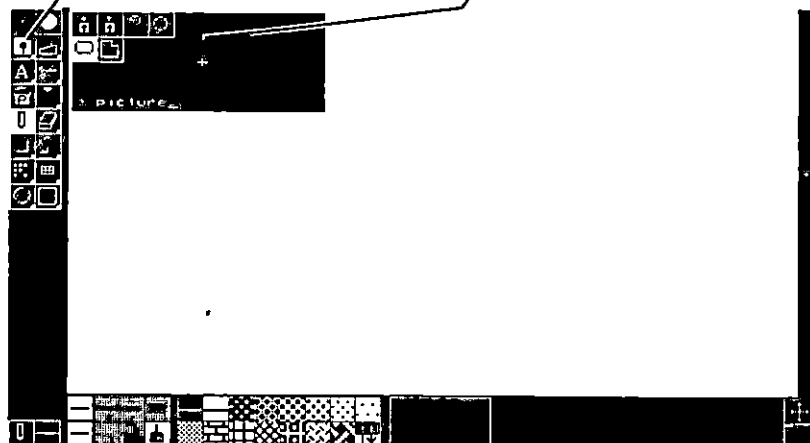
DISK



Use the Disk icon to do file operations such as saving pictures in files, displaying pictures from files, and deleting picture files.

When you select this icon (by pressing either button) ...

DP Graphics displays additional icons so that you can select what you want to do.



File Type

DP Graphics lets you work with either picture files or text files.



Use the Picture icon to specify working with a picture file.

If you've selected this icon, DP Graphics automatically adds the suffix .PIC to the filename you enter when you use the Save File icon. Likewise, DP Graphics lists only filenames with that suffix when you use the List Files icon.



Use the Document icon to specify working with a document file.

If you've selected this icon, DP Graphics automatically adds the suffix .TXT to the filename you enter when you use the Save File icon. Likewise, DP Graphics lists only filenames with that suffix when you use the List Files icon.

Note *The DP Graphics screen can hold only about one page of text.*

To specify the file type:

- Point to the Document or Picture icon, then press either button.
DP Graphics highlights the selected icon.

Filename

The List Files icon.



The current filename.

The **current filename** is the last filename selected. When you start DP Graphics, the current filename will be PICTURE if the Picture icon is highlighted or TEXT if the Document icon is highlighted.

You can change the current filename either by typing it, or by selecting it from a list that DP Graphics can display for you.

To change the filename by typing:

- Use the Backspace key to delete the current filename, then type the new filename. *Do not press Enter.*

To change the current filename by selecting a filename from a list:

- If you want to see a list of the files in a different directory, use the Backspace key to erase the current filename, then type the path to that directory.

For example, if you want to see a list of the files in the directory C:\PERFECT\PICTURES, type *C:\PERFECT\PICTURES* in place of the current filename. Likewise, if you want to see a list of the files on drive B, type *B:* as the current filename. If you skip this step, the next step will display the files in the \PERFECT\DOCUMENT directory.

- Point to the List Files icon (the question mark) and press either button.

DP Graphics displays a list of the files.

The scroll arrows.



- To see more filenames before or after those now visible, point to a scroll arrow and press either button.
TOP appears on the first “page” of the list; BOTTOM appears on the last.
- To highlight a filename from the list, point to it and press either button.
- To select the highlighted filename, point to GO and press either button.

DP Graphics closes the file list box and makes the filename you selected the current filename.

Note To close the file list box without selecting a filename, point to GO and press either button.

Tip! DP Graphics lists only picture or text files in the \PERFECT\DOCUMENT directory. If you want to work with picture files from PagePerfect's PICTURE directory or text files from PagePerfect's TEXT directory, use PagePerfect's File Manager or Picture Librarian to move them.

Save File



Use the Save File icon to save your work on disk.

- Point to the Disk icon and press either button.
- If necessary, select the Document icon or the Picture icon to specify the file type.
- If necessary, change the current filename.
See "Filename."
- Point to the Save File icon and press either button.
- Press the left button to save the screen under the current filename.

Tip! DP Graphics saves all picture and text files in the \PERFECT\DOCUMENT directory. If you want to keep a picture file in PagePerfect's PICTURE directory or a text file in PagePerfect's TEXT directory, use PagePerfect's File Manager or Picture Librarian to move it.

Retrieve File



Use the Retrieve File icon to display a picture or text from a file on the screen.

To display the contents of a picture or text file:

- Point to the Disk icon and press either button.
- If necessary, select the Document icon or the Picture icon to specify the file type.

- If necessary, change the current filename.

See "Filename."

- Point to the Retrieve File icon and press either button.
- Press the left button to display the specified file.

DP Graphics displays a clock on the screen while it gets the file from disk.

Tip! *DP Graphics gets all picture and text files from the \PERFECT\DOCUMENT directory. If you want to get a picture file from PagePerfect's PICTURE directory or a text file from PagePerfect's TEXT directory, use PagePerfect's File Manager or Picture Librarian to move it.*

Delete File



Use the Delete File icon to delete a picture or text file.

To delete a file:

- Point to the Disk icon and press either button.
- If necessary, select the Document icon or the Picture icon to specify the file type.
- If necessary, change the current filename.
See "Filename."
- Point to the Delete File icon and press either button.
- Press the left button to delete the specified file.

ERASER



Use the Eraser icon to erase portions of the drawing area.

DP Graphics can replace the area erased with either the background color (this is the usual case) or with the current color (the color shown in the upper-right of the Status box).

To erase to the background color:

- Point to the Eraser icon and press the left button.
- Move the cursor back into the drawing area.
The cursor takes the shape of a box. You'll erase by moving the cursor over what you want to erase.
- To enlarge the size of the cursor, press and hold the right button while you move your pointer until the cursor is the size you want, then release the button.
- Move your pointer so that the cursor encloses what you want to erase, then press and release the left button.

DP Graphics erases what's inside the cursor.

OR

- Press and hold the left button while you move the cursor over the area you want to erase.

DP Graphics erases whatever you move the cursor over.

To erase to the current color:

- Point to the Eraser icon at the side of the screen and press the *right* button.
DP Graphics opens a control box showing two icons so that you can select how to erase.

This icon erases to the background color.

This icon erases to the current color.



You don't need to use this icon in this version of DP Graphics.

- Point to the second icon and press either button.

- Move the cursor back into the drawing area.

The cursor takes the shape of a box. You'll erase by moving the cursor box over what you want to erase.

- To enlarge the size of the cursor, press and hold the right button while you move your pointer until the cursor is the size you want, then release the button.
- Move your pointer so that the cursor encloses what you want to erase, then press and release the left button.

DP Graphics erases what's inside the cursor.

OR

- Press and hold the left button while you move the cursor over the area you want to erase.

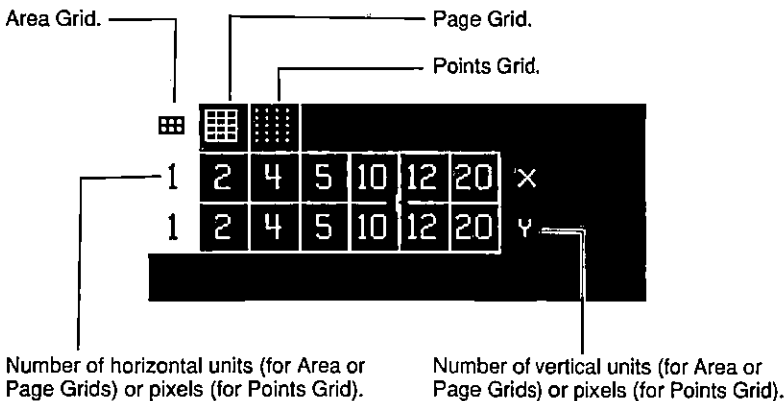
DP Graphics erases whatever you move the cursor over.

GRID



Use the Grid icon to create a grid of lines on an area of the screen or on the entire virtual page. You can also use it to create an invisible grid for limiting drawing to certain points.

When you select this icon by pressing the right button, DP Graphics displays a control box showing additional icons so that you can select what you want to do.



Area Grid



Use this icon to create a grid of lines on an area of the screen.

- Open the control box for the Grid icon by pointing to the icon and pressing the right button.
- Point to the number (in the second row) specifying how many horizontal units you want in the grid, then press either button.
- Point to the number (in the third row) specifying how many vertical units you want in the grid, then press either button.
- Point to the Area Grid icon and press either button.
- Close the control box by pointing to a blank area within it and pressing either button.
- Move the cursor back onto the screen.

The cursor takes the shape of a box. You'll use this box to outline where you want to create the grid.

- Press and hold the right button while you move the box until it's the size of the grid you want to create, then release the button.
- Move the box where you want to create the grid, then press the left button.

DP Graphics creates the grid.

Tip! *If you want to draw a grid with some number of units other than the numbers you can select, select the next higher number, then erase the excess units in the grid that's drawn. For example, if you want a grid with 15 horizontal units, select 20 units, then erase 5 at either end.*

Page Grid



Use this icon to create a grid of lines covering the entire virtual page (not just the screen).

- Open the control box for the Grid icon by pointing to the icon and pressing the right button.

- Point to the number (in the second row) specifying how many horizontal units you want on the virtual page, then press either button.
- Point to the number (in the third row) specifying how many vertical units you want on the virtual page, then press either button.
- Point to the Page Grid icon and press either button.
- Close the control box by pointing to a blank area within it and pressing either button.

Grid lines appear on the screen. Remember that since the Page Grid icon draws grid lines across the entire virtual page, you won't see the correct number of units until you look at the virtual page. (See "Virtual Page" in the "Control Icons" section.)

Tip! *If you want to draw a grid with some number of units other than the numbers you can select, select the next higher number, then erase the excess units in the grid that's drawn. For example, if you want a grid with 15 horizontal units, select 20 units, then erase 5 at either end.*

Points Grid

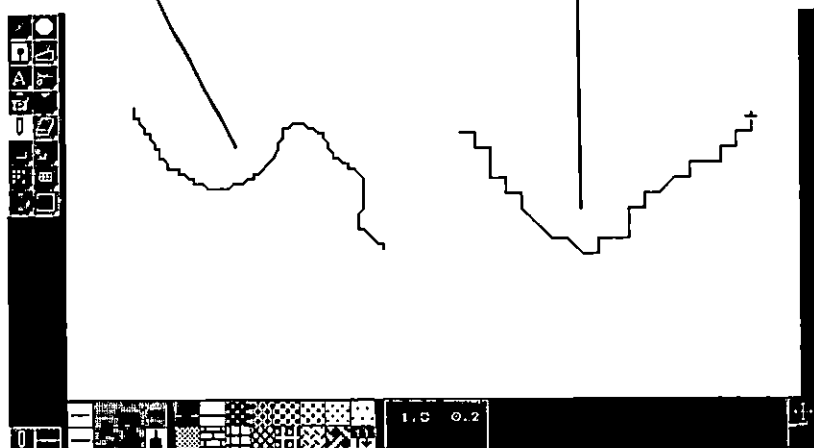


Use this icon to create a grid of points "under" the screen. After creating this invisible grid, any lines you draw will "snap" to the points where the grid lines intersect. This is useful for aligning graphs and text on the screen.

For creating a points grid, the numbers in the Grid icon's control box represent the number of pixels between grid points. For example, if you select 4 for both the second and third rows, lines you draw will jump to points on the screen that are 4 pixels apart.

This line was drawn with a 4-pixel points grid.

This line was drawn with a 12-pixel points grid.



To create a points grid:

- Open the control box for the Grid icon by pointing to the icon and pressing the right button.
- Point to the number (in the second row) specifying how many pixels you want horizontally between grid points, then press either button.
- Point to the number (in the third row) specifying how many pixels you want vertically between grid points, then press either button.
- Point to the Points Grid icon and press either button.
- Close the control box by pointing to a blank area within it and pressing either button.

Any drawing you do now will jump from point to point.

Note You can't use the Points Grid in Virtual Page mode.

To delete a points grid:

- Open the control box for the Grid icon by pointing to the icon and pressing the right button.
- Point to 1 on the second row and press either button.
- Point to 1 on the third row and press either button.

- Point to the Points Grid icon and press either button.
- Close the control box by pointing to a blank area within it and pressing either button.

Any drawing you do now will be continuous again.

LINE



Use the Line icon to draw point-to-point, diagonal, horizontal, and vertical lines; filled polygons (triangles, rectangles, etc.); and curved lines through a series of points.

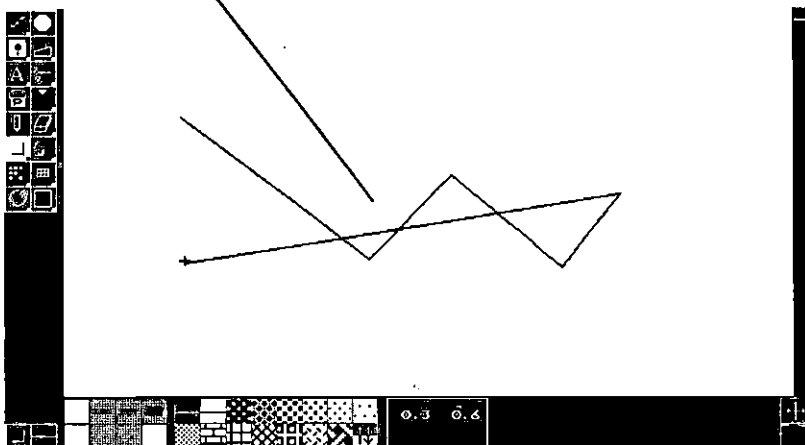
The line-width, line-style, color, and pattern icons control the look of the lines and polygons you draw, and the Brush icon controls whether your drawing is discrete or continuous (see the "Control Icons" section).

Point-to-Point Line



Use this icon to draw lines from one point to another.

Point-to-point lines.



- Point to the Line icon and press the left button.

- Position the cursor where you want to begin a line, then press the left button.
- Move the cursor to the point where you want to “bend” the line, then press the left button again.
- Repeat the preceding step as many times as you want.
- When the sequence of lines is complete, press the right button, or move the cursor out of the drawing area.

Note *To erase any line segment before you complete it, move the cursor out of the drawing area.*

Straight Line



Use these icons to draw diagonal, horizontal, or vertical lines.

- Point to the Line icon and press the right button.
DP Graphics opens a control box so you can select what kind of line to draw.
- Point to the appropriate icon and press either button.
- Press and hold the *right* button.
- Move your pointer until the line is the length and (for the diagonal line) the angle you want, then release the button.
- Move your pointer until the line is positioned where you want it, then press the left button.

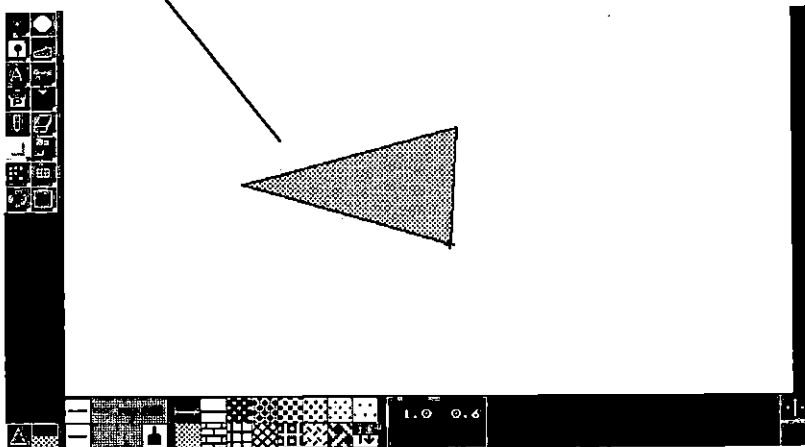
You can draw the same line in more than one place by repeating the preceding step.

Filled Polygon



Use this icon to draw a filled polygon.

A filled polygon.



- Point to the Line icon and press the right button.
DP Graphics opens a control box so you can select what kind you want to draw.
- Point to the Filled Polygon icon and press either button.
- Position the cursor where you want a corner of the polygon, then press and release the left button.
- Move the cursor to where you want the next corner of the polygon, then press the left button.
- Repeat the preceding step as many times as you want.
- When the polygon is complete, press the right button to fill the polygon.

To erase the drawing before it's completed, move the cursor out of the drawing area.

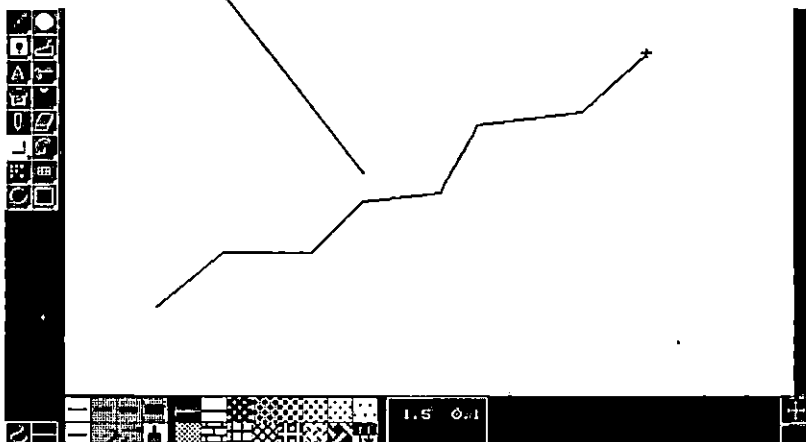
Curved Line



Use this icon to draw a curved line through a series of points.

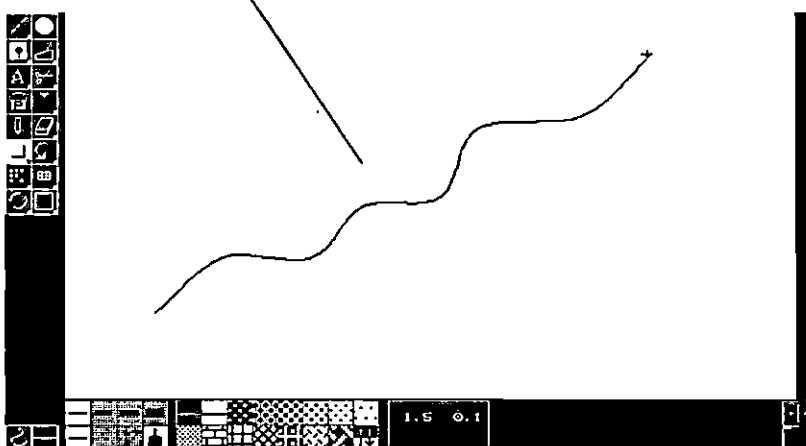
- Point to the Line icon and press the right button.
DP Graphics opens a control box so you can select what kind of line to draw.
- Point to the second icon from the right of the control box and press either button.
- Position the cursor to mark the point where you want to begin the line, then press and release the left button.
- Move the cursor to mark the next point you want in the line, then press and release the left button again.
DP Graphics draws a line between the first and second points.
- Move the cursor to mark another point you want in the line, then press the left button again.
DP Graphics draws a line between the second and third points. The two lines form an angle now, but DP Graphics will round this angle into a curve after you finish specifying the points in the line.
- Repeat the preceding step for each point you want in the curved line.

DP Graphics draws straight lines between points as you specify them.



- After you've specified all the points in the line, press the right button to change the jagged line connecting them into a curved line.

The resulting curved line.



Note To erase the object before you complete it, move the cursor out of the drawing area.

Flexible Curved Line

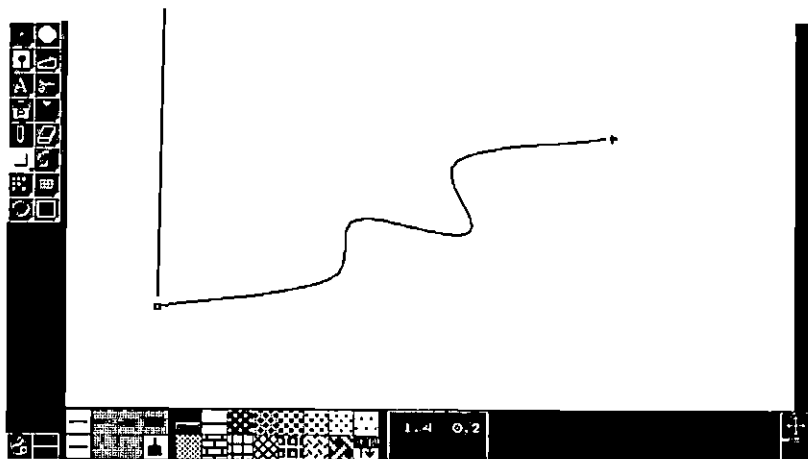


You can use this icon to draw a curved line through a series of points, as you can with the icon to its left. Using this icon, however, you can flex the curved line after it's drawn.

- Point to the Line icon and press the right button.
DP Graphics opens a control box so you can select what kind of line to draw.
- Point to the last icon in the control box and press either button.
- Position the cursor to mark the point where you want to begin the line, then press and release the left button.
- Move the cursor to mark the next point you want in the line, then press and release the left button again.
DP Graphics draws a line between the first and second points.
- Move the cursor to mark another point you want in the line, then press and release the left button again.
DP Graphics draws a line between the second and third points. The two lines form an angle now, but DP Graphics will round this angle into a curve after you finish specifying the points in the line.
- Repeat the preceding step for each point you want in the curved line.
- After you've specified all the points in the line, press the right button to change the jagged line connecting them into a curved line.

DP Graphics draws a curved line through the points, and a **handle** appears at the first point you specified.

The handle at the first point in the line.



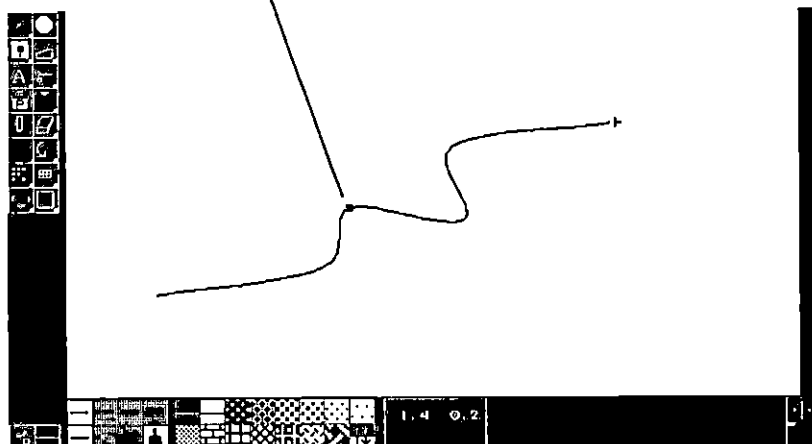
You can now move any of the curves in the line.

First, put the handle on the curve you want to move:

- Press the left button until the handle is on the curve you want to move.

The handle moves to the next curve each time you press the left button.

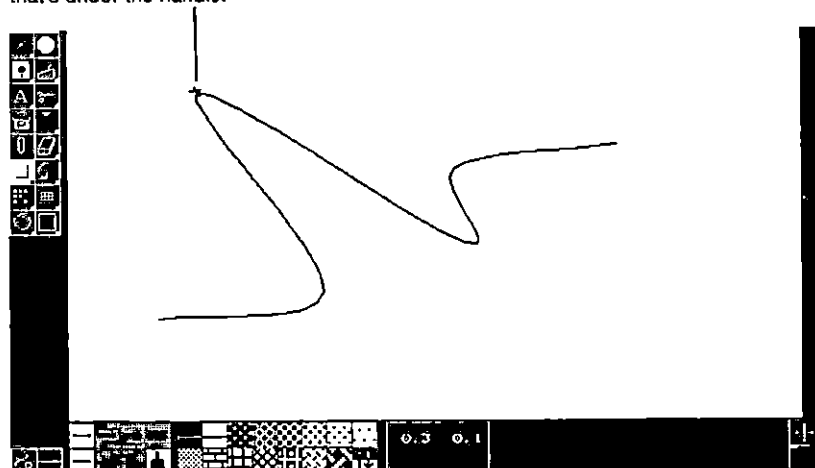
Pressing the left button twice moves the handle here.



Now, move the curve:

- Put the cursor on the handle, press and hold down the right button while you move your pointer, then release the button when the curve is where you want it.

Moving your pointer drags the curve that's under the handle.



- To move another curve, repeat the preceding two steps.

- To move the handle back to the first point you specified in the line, press the left button until the handle disappears off the end of the curve, then press the *left* button once more.
- To end the drawing, press the left button until the handle disappears off the end of the curve, then press the *right* button.

PAINT CAN



Use the Paint Can icon to fill an enclosed area with a pattern (including black or white).

- Point to the Paint Can and press either button.
- If necessary, select the icon representing the pattern you want to use.

You can select a pattern by pointing to it and pressing either button. You can select black or white by pointing to the appropriate icon and pressing the left button.

- Move the cursor into the area you want to fill, then press either button.

DP Graphics fills the enclosed area with the current pattern.

Note *You can fill an area that you created with a tool that creates areas—such as the Circle or Rectangle tool—or you can fill an area that you created by drawing a closed area with a tool like the Pencil.*

PENCIL



Use the Pencil icon to draw freehand solid or dotted lines.

The line-width, line-style, and color icons control the look of the lines you draw (see the “Control Icons” section).

To draw a solid line:

- Point to the Pencil icon and press either button.
- Position the cursor where you want to begin the line, then press and hold the *left* button.

- Move your pointer to draw the line, then release the button.

To draw a dotted line:

- Point to the Pencil icon and press either button.
- Position the cursor where you want to begin the line, then press and hold the *right* button.
- Move your pointer to draw the line, then release the button.

Tip! *The spacing between dots depends on how fast you move your pointer.*

PIXELS



Use the Pixels icon to display and edit an area in great detail. You can use it also to create, store, and use symbols, and to create new patterns for filling areas.

Switch Pixel Colors

The screen display consists of thousands of pixels. An object that's not solid black is made up of some pixels that are black and some that are white. DP Graphics lets you enlarge an area and switch any pixel's color from black to white or vice versa.

- Point to the Pixels icon and press the right button.

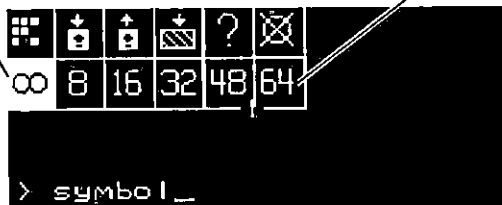
DP Graphics displays a control box showing additional icons so that you can select what you want to do.

- Point to the size of the area you want to edit, then press either button.

DP Graphics highlights the size you select.

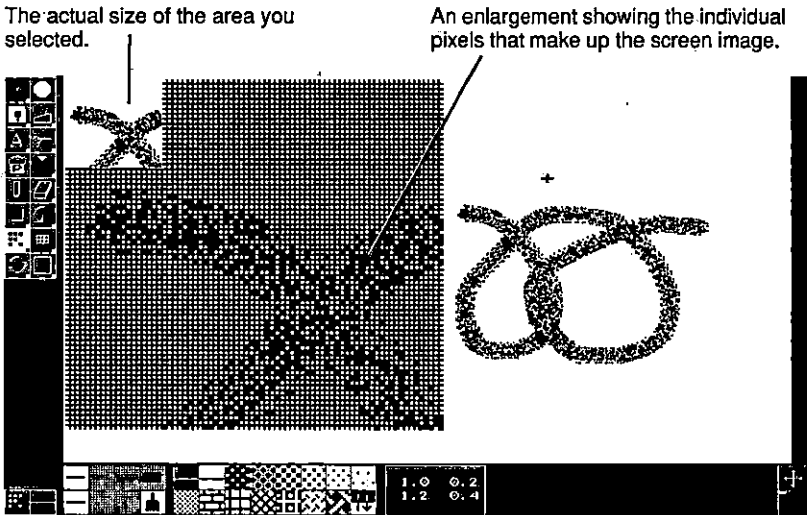
The Infinity icon lets you edit an area of any size.

These are the sizes (in pixels) of areas you can edit.



- Point to the Pixels icon *in the control box* and press either button.
- Move your pointer to the right.
The screen pointer takes the shape of a box, in the size you selected.
- If you had selected the Infinity icon to specify the size of the box, press and hold the right button while you move your pointer until the box is the size you want, then release the button.
- Move the box over the area you want to edit, then press the left button.

DP Graphics displays actual-size and enlarged views of the area you've selected for editing.



- If necessary, select the Black or White icon to change the current color to opposite the background color.

If the background is white (the usual case), make sure the current color (as shown in the status box in the lower-left corner of the screen) is black. If the background is black, make sure the current color is white.

- Point to the pixel whose color you want to switch, then:
 - Press the left button to fill the pixel with the current color.
 OR
 - Press the right button to fill the pixel with the background color.
- When you're done editing pixels in the area you selected, point to the actual-size view and press either button.

Tip! *You can quickly fill adjacent pixels with either color by holding down the button and moving the cursor across the pixels.*

Create Symbol



Use this icon to create a symbol.

- Point to the Pixels icon at the side of the screen and press the right button.
- Point to a size large enough to contain the symbol you want to create, then press either button.
- Point to this icon (in the control box) and press either button.
- Move the cursor into the drawing area.

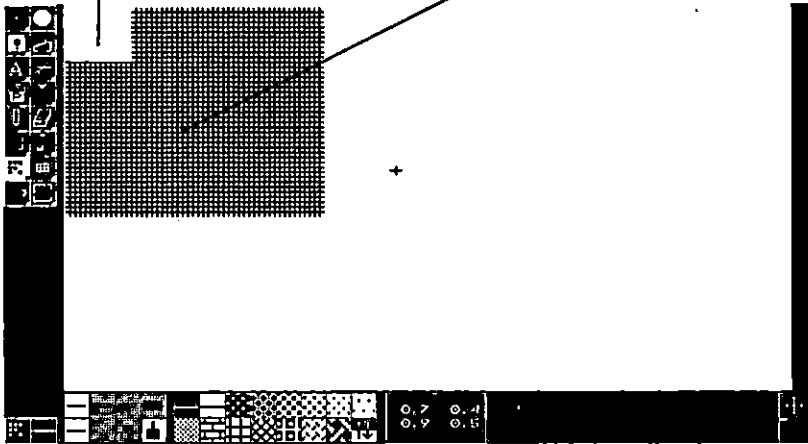
The cursor takes the shape of a box, in the size you selected.

- If you had selected the Infinity icon to specify the size of the box, press and hold the right button while you move your pointer until the box is the size you want, then release the button.
- Move the box over a blank area of the screen, then press the left button.

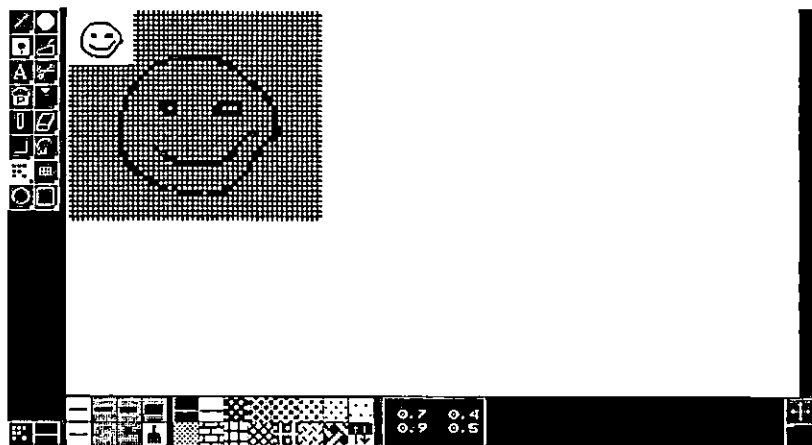
DP Graphics displays actual-size and enlarged views of the area you've selected for creating the symbol.

The symbol you're creating appears here in actual size.

You create the symbol here by filling pixels.



- If necessary, select the Black or White icon to change the current color to opposite the background color.
If the background is white (the usual case), make sure the current color (as shown in the status box in the lower-left corner of the screen) is black. If the background is black, make sure the current color is white.
- Point to the pixel you want to fill, then press the left button.
- To “unfill” or erase a pixel (change its color to the background color), point to the pixel, then press the right button.



- When you're done creating the symbol, point to the actual-size view and press either button.

Tip! *You can quickly fill or erase adjacent pixels by holding down the appropriate button and moving the cursor across the pixels.*

Save Symbol



Use this icon to save a symbol you've created for future use.

- Point to the Pixels icon at the side of the screen and press the right button.
- Point to a size large enough to contain the symbol you want to save (or any area you want to save as a symbol), then press either button.
- Point to this icon (in the control box) and press either button.
- Move the cursor into the drawing area.
The cursor takes the shape of a box, in the size you selected.
- If you had selected the Infinity icon to specify the size of the box, press and hold the right button while you move your pointer until the box is the size you want, then release the button.

- Move the box over the symbol or area you want to save, then press the left button.
- Point to the Pixels icon at the side of the screen and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.

Note *The filenames for symbol files have the suffix SYM.*

Note *You cannot store a symbol that requires more than 32K of disk space.*

Retrieve Symbol



Use this icon to retrieve a symbol you've stored on disk.

- Point to the Pixels icon at the side of the screen and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.
- Move the cursor onto the screen.
The cursor takes the shape of a box, in the size of the symbol.
- Move the box to where you want to place the symbol, then press the left button.
DP Graphics places the symbol on the screen.

Delete Symbol



Use this icon to delete a file containing a symbol.

- Point to the Pixels icon at the side of the screen and press the right button.

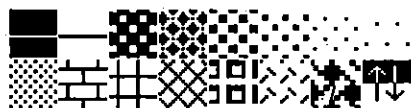
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.
- Press the left button to delete the specified file.

Create Pattern



Use this icon to create a pattern from a symbol stored on disk.

- Point to the Pixels icon at the side of the screen and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.
DP Graphics places the symbol you've selected in the last pattern icon. You can now select it for filling objects just as you do any other pattern.



The symbol you select replaces this pattern.

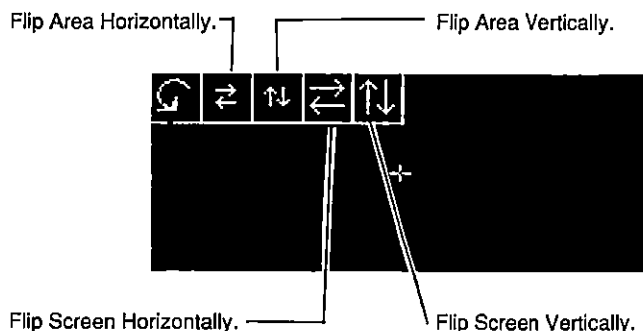
Note *You cannot store or create a pattern from a symbol that requires more than 32K bytes for storage.*

ROTATE



Use the Rotate icon to rotate a selected area, or to flip a selected area or the entire screen horizontally or vertically.

If you select this icon by pressing the right button, DP Graphics displays additional icons so that you can select what you want to do.



Rotate

- Point to the Rotate icon and press the left button.
- Move the cursor back onto the screen.
The cursor takes the shape of a box. You'll use this box to outline the area you want to rotate.
- Press and hold the right button while you move the box until it's the size of the area you want to rotate, then release the button.
- Move the box over the area you want to rotate, then press the left button.

DP Graphics rotates the outlined area 90° counterclockwise.

- Press the left button again to rotate the area another 90°.

Note As you change the size of the outline box, the ratio of the box dimensions (height and width) remains constant.

Tip! DP Graphics rotates the entire area in the outline box, not just the object enclosed within the outline. To rotate an object around its center, you'll need to position the outline box so that the object is centered within it. If the object is not centered within the rotated area, DP Graphics will move the object with respect to the center of that area (as if it were a thumbprint on a square phonograph record).

Flip Area

- Point to the Rotate icon and press the right button.
- Point to the appropriate Flip Area icon and press the left button.

- Move the cursor back onto the screen.

The cursor takes the shape of a box. You'll use this box to outline the area you want to flip.

- Press and hold the right button while you move the box until it's the size of the area you want to flip, then release the button.
- Move the box over the area you want to flip, then press the left button.

DP Graphics flips the outlined area horizontally or vertically.

- Press the left button again to flip it back again.

Note *As you change the size of the outline box, the ratio of the box dimensions (height and width) remains constant.*

Tip! *DP Graphics flips the entire area in the outline box, not just the object enclosed within the outline. To flip an object around its center, you'll need to position the outline box so that the object is centered within it. If the object is not centered within the rotated area, DP Graphics will move the object with respect to the center of that area.*

Flip Screen

- Point to the Rotate icon and press the right button.
- Point to the appropriate Flip Screen icon and press the left button.

DP Graphics flips the screen horizontally or vertically.

- Repeat the preceding two steps to flip the screen back.

Note *Flipping the screen horizontally may take half a minute or more, depending on how much drawing you have done.*

SCANNER



Use the Scanner icon to scan a picture into the virtual page.

Scan



Use this icon to start the scanning.

- Point to the Scanner icon at the left of the screen and press the right button.
- If desired, switch the scanning color.
See "Select Scan Color."
- If you want to scan less than a full page, specify the area to be scanned.
See "Select Scan Area."
- If you want to scan a photograph (or anything that consists of gray tones, rather than only blacks and whites), change the the scan mode from the default.
See "Select Scan Mode."
- If desired, specify the scanning sensitivity.
See "Select Scan Sensitivity."
- Point to the Scanner icon *in the control box* and press either button.
DP Graphics asks you to confirm that you're ready to begin scanning.
- Set up your scanner, then press the left button to start the scanning.

The screen changes to show the virtual page without the icons. What you're scanning appears on the screen as it is scanned.

To terminate the scanning before it's complete, press Esc.

Select Scan Color



Use this icon to switch the result of the scanning between black-on-white and white-on-black.

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.
- Point to this icon and press either button.

Select Scan Area



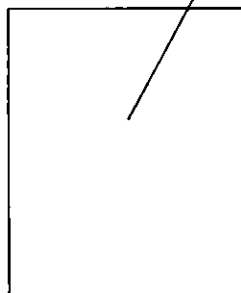
Use this icon to specify the area to be scanned.

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.
- Point to this icon and press either button.

A blank 8-1/2 x 11-inch page appears on the screen.

The distance of the sides of the box from the upper-left corner of the page.

This box lets you specify the area you want to scan.



- To change the size of the box, hold down the right button, move your pointer down and to the left until the box is the size you want, then release the button.

- To position the box on the page, move your pointer until the box marks the area you want, then press the left button.

The normal Window mode display reappears on your screen.

Note *This procedure specifies both the area of the page that you're scanning, and also the area of the virtual page into which the scanned area is inserted.*

Select Scan Mode



Use this icon to switch the scan mode between scanning a graphic with only blacks and whites (the default) and scanning a graphic with gray tones (such as a photograph).

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.
- Point to this icon and press either button.

Select Scan Sensitivity



This box shows the numerical value of the scan sensitivity (contrast), which you specify using the scale in the control box.

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.

You can specify the scan sensitivity using the cursor.

The numerical value of the scan sensitivity appears here.



Selecting a sensitivity toward this end darkens the result of the scanning.

Selecting a sensitivity toward this end lightens the result of the scanning.

- Move your pointer to mark the sensitivity you want, then press and release either button.

DP Graphics moves the vertical line in the scale to the cursor position, and it shows the numerical value of the sensitivity at the upper-right of the control box.

Note *This affects the scanning of blacks and whites as well as gray tones.*

Save Scan-Parameters File



Use this icon to save the current scan parameters in a file so that you can use them in the future without selecting each one individually.

The scan parameters you can save include the scan color, the scan area, the scan mode, and the scan sensitivity.

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.

Retrieve Scan-Parameters File



Use this icon to retrieve scan parameters you've saved in a file.

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.

Delete Scan-Parameters File



Use this icon to delete a file containing scan parameters.

- If necessary, open the control box for the Scanner icon by pointing to the Scanner icon and pressing the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to this icon and press either button.
- Press the left button to delete the specified file.

SCISSORS



Use the Scissors icon to copy or move part of a picture from one part of the screen to another, and to store or retrieve pictures or parts of pictures on disk.

Move



Use this icon to move part of a picture from one part of the screen to another.

You can move an object in either of two ways, depending on whether the Brush icon is on or off (see "Brush" in the "Control Icons" section).

To move with the Brush on:

- Point to the Scissors icon and press the left button.
The cursor takes the shape of a box.
- Position the upper-left corner of the cursor at the upper-left corner of the area you want to move, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to move, then release the button.
- Press and release the left button to mark the area you want to move.

- Move the cursor to where you want to move the enclosed area, then press and release the left button.

To move with the Brush off:

- Point to the Scissors icon and press the left button.
The cursor takes the shape of a box.
- Position the upper-left corner of the cursor at the upper-left corner of the area you want to move, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to move, then release the button.
- Press and hold the left button, move your pointer until the enclosed area is where you want it, then release the button.

Tip! *If you want to switch the colors in the result, open the control box for the Scissors icon by pointing to it and pressing the left button, select an icon from the second row (see “Color Control” below), then point to the Scissors icon and press either button.*

Copy



Use the Rubberstamp icon to copy part of a picture from one part of the screen to another.

You can copy an object in either of two ways, depending on whether the Brush icon is on or off (see “Brush” in the “Control Icons” section).

To copy with the Brush on:

- Open the control box for the Scissors icon by pointing to the icon and pressing the right button.
- If you want to switch colors in the copy, select an icon in the second row.
See “Color Control” below.
- Point to the Rubberstamp icon and press either button.
The cursor takes the shape of a box.
- Position the upper-left corner of the cursor at the upper-left corner of the area you want to copy, then press and hold the right button.

- Move your pointer until the cursor encloses the area you want to copy, then release the button.
- Press the left button to mark the area you want to copy.
- Move the cursor to where you want to insert the copy, then press and release the left button.

To copy with the Brush off:

- Open the control box for the Scissors icon by pointing to the icon and pressing the right button.
- If you want to switch colors in the copy, select an icon in the second row.

See "Color Control" below.

- Point to the Rubberstamp icon and press either button.
The cursor takes the shape of a box.
- Position the upper-left corner of the cursor at the upper-left corner of the area you want to copy, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to copy, then release the button.
- Press and hold the left button, move your pointer until the enclosed area is where you want it, then release the button.

Scale



Use the Scale icon to copy part of a picture, scale the copy (change its size), then insert the scaled copy on the screen.

- Open the control box for the Scissors icon by pointing to the icon and pressing the right button.
- If you want to switch colors in the copy, select an icon in the second row.

See "Color Control" below.

- Point to the Scale icon and press either button.
The cursor takes the shape of a box.

- Position the upper-left corner of the cursor at the upper-left corner of the area you want to copy and scale, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to copy and scale, then release the button.
- Press the left button to mark the area you want to copy and scale.
- Press and hold the right button, then move your pointer to change the cursor's size.

The dimensions of the cursor when you release the button will determine the size of the copy.

- When the cursor is the size you want, release the right button.
- Move the cursor to where you want to insert the scaled copy, then press and release the left button.

Note *You cannot scale in Virtual Page mode.*

Tip! *Scaling works best on objects drawn with solid colors and thick lines. Also, the scaled result will look best if the change in the object's aspect ratio (the ratio of its height to its width) is not drastic. (See appendix B for more information about aspect ratios.)*

Save Area



Use the Save Area icon to save a selected area on disk.

- Point to the Scissors icon and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- If you want to switch colors in the area saved, select an icon in the second row.
See "Color Control" below.
- Point to the Save Area icon and press either button.
The cursor takes the shape of a box.

- Position the upper-left corner of the cursor at the upper-left corner of the area you want to save, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to save, then release the button.
- Press and release the left button to mark the area you want to save.

DP Graphics adds the suffix **CUT** to the filename you specify and saves the file in the directory that was current when you started PagePerfect.

Retrieve Area



Use the Retrieve Area icon to display the contents of a DP Graphics picture file (called a **CUT** file) in the drawing area.

- Point to the Scissors icon and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- If you want to switch colors in the area retrieved, select an icon in the second row.
See "Color Control" below.
- Point to the Retrieve Area icon and press either button.
The size of the cursor changes to indicate the size of the area retrieved.
- To change the size of the area that will be inserted in the drawing area, press and hold the right button, move your pointer until the cursor is the size you want for the area, then release the button.
- Move the cursor to where you want to insert the retrieved area, then press and release the left button.

Note *DP Graphics looks for the file in the directory that was current when you started PagePerfect.*

Save Virtual Page



Use the Save Virtual Page icon to save the contents of the virtual page on disk.

- Point to the Scissors icon and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- If you want to switch colors in what's saved, select an icon in the second row.
See "Color Control" below.
- Point to the Save Virtual Page icon and press either button.
DP Graphics displays a clock on the screen while it saves the contents of the virtual page. It adds the suffix CUT to the filename you specify and saves the file in the directory that was current when you started PagePerfect.

Retrieve Virtual Page



Use the Retrieve Virtual Page icon to retrieve the contents of a DP Graphics picture file (a CUT file) into the virtual page.

- Point to the Scissors icon and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- If you want to switch colors in what's retrieved, select an icon in the second row.
See "Color Control" below.
- Point to the Retrieve Virtual Page icon and press either button.
DP Graphics displays a clock on the screen while it saves the virtual page on disk. If the picture in the file is smaller than the virtual page, it's placed in the upper-left corner of the page. If the picture is larger than the virtual page, DP Graphics crops it at the right and bottom so that it fits the virtual page.

Note DP Graphics looks for the file in the directory that was current when you started PagePerfect.

Delete File



Use the Delete File icon to delete a DP Graphics picture file (a CUT file).

- Point to the Scissors icon and press the right button.
- If necessary, change the current filename.
Use the same procedure described for the Disk icon.
- Point to the Delete File icon and press either button.
- Press the left button to delete the specified file.

Color Control

The icons in the second row of the Scissor icon's control box let you specify how colors are switched when you use any of the icons in the first row.

The colors in the result depend on two things: 1) which icon you select, and 2) for the last two icons, the color of the background where you're inserting the result.

If you select	and the background is	blacks become	whites become
	white	black	white
	black	black	white
	white	white	black
	black	white	black
	white	white	black
	black	black	white
	white	white	white
	black	black	white

Airbrush

DP Graphics lets you create a pattern for use in airbrushing (using the Rubberstamp icon, not the Airbrush icon).

- Create a black background on which to draw the pattern.
You can do this either using the Clear Screen icon, or by creating a black box or circle.
- Draw the pattern.
- Open the control box for the Scissors icon by pointing to the icon and pressing the right button.
- Select the fourth icon in the second row.
See "Color Control" above.
- Point to the Rubberstamp icon and press either button.
The cursor takes the shape of a box.
- Position the upper-left corner of the cursor at the upper-left corner of the area you want to use as an airbrush pattern, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to use as an airbrush pattern, then release the button.
- Press the left button to mark the area.
- Select the Brush icon (if it's not already selected).
- Press and hold the left button while you move the cursor over the area you want to airbrush, then release the button.

STOP SIGN



Use the Stop Sign icon to exit DP Graphics and return to PagePerfect.

- Point to the Stop Sign icon and press either button.
- Press the left button to confirm that you want to exit.

DP Graphics displays a cursor box on the screen so that you can select the area you want to save.

- Position the lower-left corner of the cursor box at the lower-left corner of the area you want to save, then press and hold the right button.
- Move your pointer until the cursor encloses the area you want to save, then release the button.
- Press and release the left button to exit DP Graphics.
DP Graphics saves the selected area and returns you to PagePerfect.

Note *You can also exit DP Graphics by holding down the Ctrl key and pressing the X key. However, doing so does not let you save what's on the screen.*

TEXT



Use the Text icon to enter text (such as a title or label) in the drawing area.

You can select any of 25 typefaces for the text you enter. If the typeface you select is a filled typeface, the text will appear in the current pattern; otherwise, it will appear in the current color. For most typefaces, the thickness of the text characters depends on the current line width (see the "Control Icons" section). The current line style also affects the text you create; however, it's recommended that you use the solid-line style for normal text.

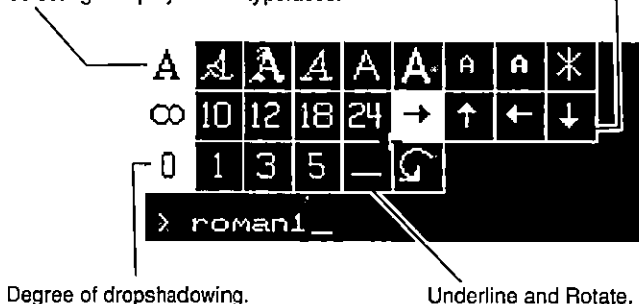
Enter

- Point to the Text icon and press the right button.

DP Graphics opens a control box showing text specifications.

Eight commonly used typefaces.
Selecting * displays all 25 typefaces.

Type sizes and print directions.



- Select the text specifications.

Use the procedures described below under "Typeface," "Type Size and Print Direction," "Dropshadow," "Underline," and "Rotate."

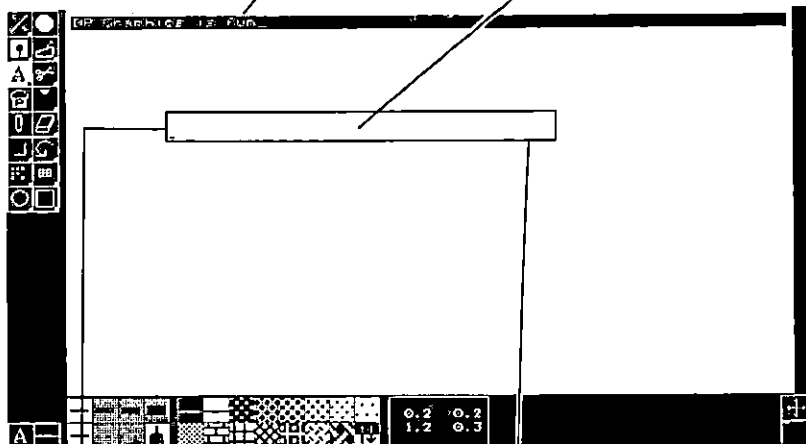
- Close the control box by pointing to a blank area in it and pressing either button.
- Move the cursor onto the screen.

The cursor takes the shape of a box.

- If the Infinity icon (the default) is selected, you can change the size of the text by holding down the right button while you move your pointing device, then releasing the button when it's the size you want.
- Type the text.

Text you type appears here first.

The text will be entered here when you press the Enter key or the left button.



The height of the cursor shows the size of the text.

The width of the cursor changes to show the width of the text you've typed.

When you've typed all you want on a line:

- Move the cursor to where you want to enter the text, then press the left button.

OR

- If the cursor is exactly where you want it, press the Enter key.

Note To enter text at an angle, use the procedure under "Rotate" below.

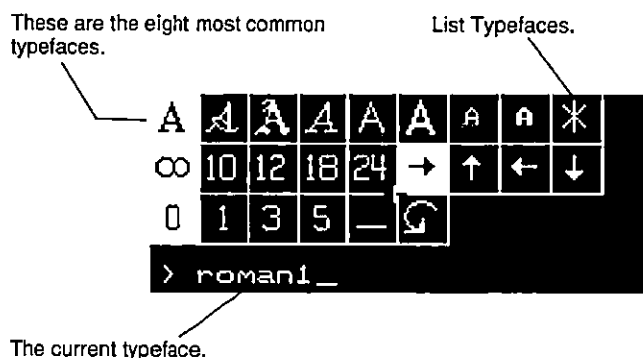
Note If you end your text entry by pressing the Enter key, the cursor moves down so that you can enter another line of text. If you do so (without moving the cursor), the text lines will be aligned at their left ends, and the spacing between the lines will depend on the size of the type.

Note If the text you type is too long to fit on the screen, or if the type size is too large for the text to fit on the screen, both the text-entry box and the cursor disappear. You can restore them by moving the cursor toward the center of the screen, and/or reducing the type size.

Note *If you select the Text icon by pressing the left key, DP Graphics will use the type specifications that you selected when you last used the Text tool. If you have not selected any other specifications, DP Graphics uses the first typeface; with no dropshadowing, underlining, or rotation; printing left-to-right; in a variable type size.*

Typeface

You can either select one of the 8 typefaces that appear in the Text tool's control box, or you can select one of 25 typefaces from a list that DP Graphics can display for you. Appendix C shows samples of the typefaces available.



To select a typeface from the control box:

- Point to the typeface you want, then press either button.

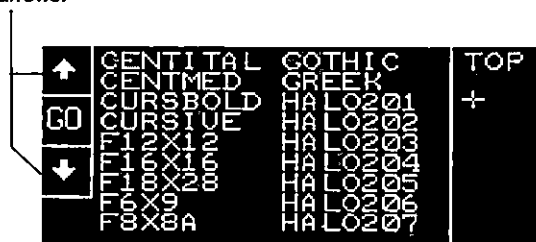
The name of the typeface you've selected appears at the bottom of the control box.

To select a typeface from a list:

- Point to the List Typefaces icon (the asterisk in the first row) and press either button.

DP Graphics displays a list of the available typefaces.

The scroll arrows.



- To see more names of typefaces before or after those now visible, point to a scroll arrow and press either button.
- TOP appears on the first “page” of the list; BOTTOM appears on the last.
- To highlight the name of a typeface from the list, point to it and press either button.
- To select the highlighted typeface name, point to GO and press either button.

DP Graphics closes the file list box and makes the typeface you selected the current typeface.

Note To close the typeface list box without selecting a filename, point to GO and press either button.

Type Size and Print Direction

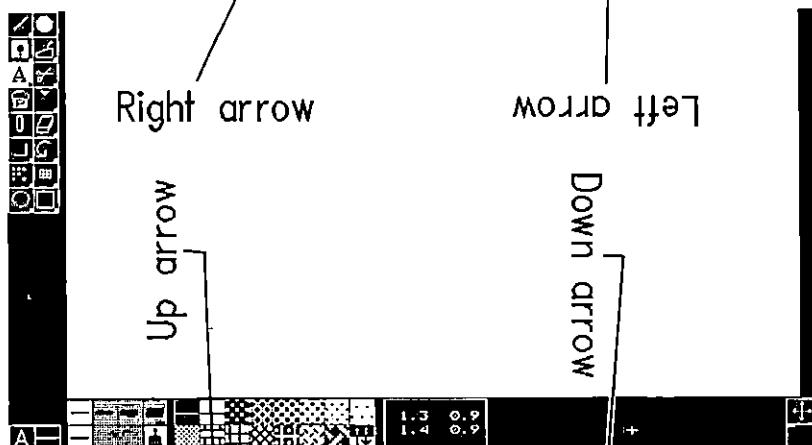
The numbers in the second row of the control box are type sizes, measured in points. (A point is a typesetter's unit of measure equal to 1/72 inch.) If you select the Infinity icon, you will be able to vary the type size by moving your pointer when you're entering the text.

- Point to the size you want or point to the Infinity icon, then press either button.
- Note** Typefaces whose names are in the form FwXh (where w is the character width and h is the character height, measured in pixels) can appear in only the size indicated in the typeface name. The type size selected in the control box is ignored.

The arrows in the second row of the control box indicate the direction in which the text will be entered onto the screen.

Text entered with right arrow selected.

Text entered with left arrow selected.



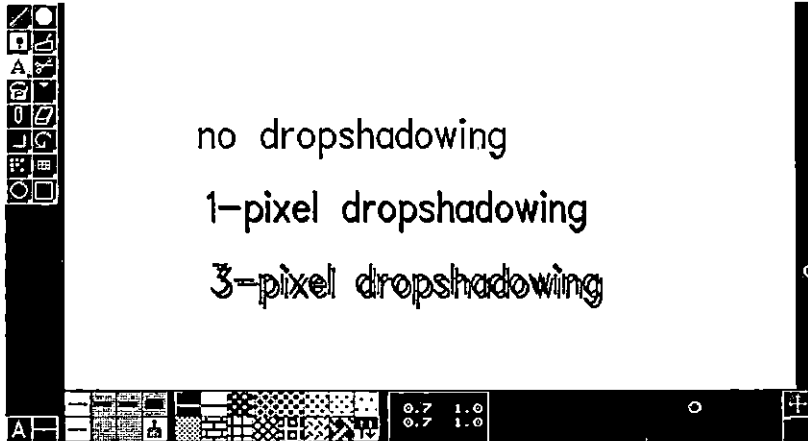
Text entered with up arrow selected.

Text entered with down arrow selected.

- Point to the direction you want, then press either button.

Dropshadow

You can add dimension and depth to text by specifying **dropshadowing** for it.



The numbers in the third row of the control box are degrees of dropshadowing, measured in pixels. Zero pixels (the default) results in no dropshadowing. If you select 1, 3, or 5 pixels of dropshadowing, DP Graphics will draw the text twice:

- At the cursor position, using the current color and current pattern (shown in the status box at the lower-left of the screen).
- At the specified number of pixels down and to the right of the cursor position, using the the color shown in the top of the Switch Color icon.

To select the degree of dropshadowing:

- Point to the number of pixels, then press either button.

Underline

To switch underlining on or off:

- Point to the Underline icon, then press either button.

With underlining on, text will be underlined as soon as you enter it.

Rotate

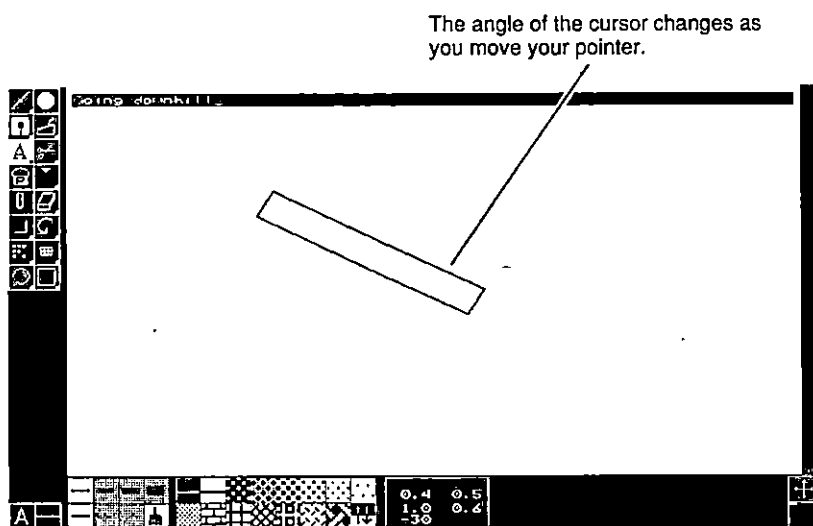
The Rotate icon lets you enter text at any angle.

To switch rotating on or off:

- Point to the Rotate icon (in the Text icon's control box), then press either button.

After typing the text you want to rotate:

- Press the left button.
DP Graphics displays 0, the angle of the cursor, in the Coordinates box.
- Press and hold the right button, move your pointing device up or down to change the angle of the cursor, then release the button.



The angle of the cursor.

- When the cursor is at the angle you want, press the left button to enter the text in the drawing area.

DP Graphics enters the text and removes the angle from the cursor position box. Moving your pointing device while holding down the right button will again change the size of the cursor (which varies the type size) rather than its angle.

Tip! *You don't need to rotate to the final position before you release the right button. If you have not yet pressed the left button to enter the text in the drawing area, you can release the right button (and move your pointer, if necessary), then press and hold the right button again while you move your pointer.*

Control Icons



This section describes the DP Graphics control icons.

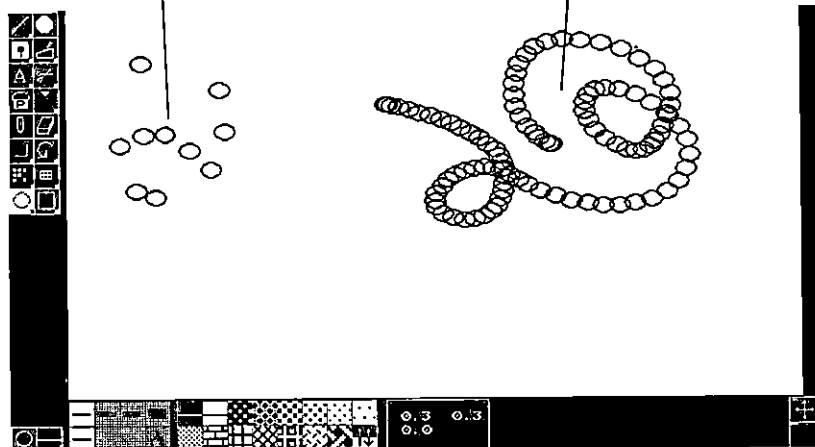
BRUSH



Use the Brush icon to switch the Drawing mode for the Circle, Box, Airbrush, Scissors, and Line icons between continuous and discrete.

Discrete drawing—Brush off.

Continuous drawing—Brush on.



To understand the effect of the Brush icon, think of each of the DP Graphics drawing tools as a physical drawing tool with a tip in the shape of the icon. For example, if you're using the Circle icon, think of it as a pen that has a tip in the shape of a circle.

If you were using such a pen on paper, you could draw with it in two ways:

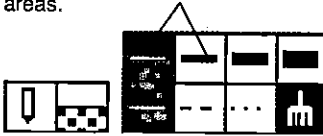
- You could place the pen on the paper to make a circle, then lift it and place it somewhere else to make a circle there (like a rubber stamp). If the Brush is off—displayed in white-on-black—your drawing tools will operate in that way: they'll draw (or stamp) only when you press the left button.
- You could place it on the paper and lightly drag it across the paper to paint a "swash" that's a series of circles. If the Brush is on—displayed in black-on-white—your drawing tools will operate in that way: you can draw a series of lines or objects by holding down the left button while you move your pointer. The spacing between the lines or patterns depends on how fast you move your pointer.

To switch the Brush icon on or off:

- Point to the Brush icon and press either button.

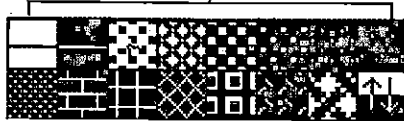
COLORS AND PATTERNS

Use these icons to select black or white for lines and for borders of areas.



The Current Color (top) and the Current Pattern (bottom).

Use these icons to select patterns for filling areas.



Use this icon to switch between black and white.

Select Color



When you start DP Graphics, you draw in black on a white background. If you create a solid black area and then want to draw a white line through it, you can do so by selecting white for drawing.

To select white or black for drawing:

- Point to the white or black icon and press the left button.

You can point to either the top or the bottom of the icon.

Note *If you have selected a pattern for filling areas and you subsequently select a color for drawing, that color replaces that pattern that's shown in the lower-right of the Status box. This means that if you then use icons that create filled areas, those areas will be filled with a "pattern" that's solid black or solid white.*

Select Pattern

The pattern you select determines what you get when you draw filled objects such as circles and rectangles, and when you use the Paint Can icon to paint a pattern in areas. It also determines the pattern in which text appears when you enter text using the Text icon.

To select a pattern:

- If desired, invert the colors in the pattern icons.
See “Switch Black and White.”
- Point to the pattern you want and press the left button.
To fill an area with solid black or solid white, point to the black or white icon.

Note *DP Graphics lets you create a custom pattern. For the details, see “Create Pattern” under the Pixels icon in the “Drawing-Tool and Utility Icons” section.*

Note *If you happen to press the right button when you’re pointing to the the black icon, each of the pattern icons will turn solid black. Likewise, if you happen to press the right button when you’re pointing to the the white icon, each of the pattern icons will turn solid white. To return to the normal black-on-white pattern display from a solid-black pattern display, point to the bottom of the white icon and press the right button. To return to the normal black-on-white pattern display from a solid-white pattern display, point to the top of the black icon and press the right button.*

Switch Color



Use the Switch Color icon to switch all black areas on the screen or in the pattern icons to white, and switch all white areas to black. This is called **inverting** the colors.

To invert the colors on the screen:

- Point to the Switch Color icon and press the right button.
- Point to the right icon and press either button.

Note *Selecting the middle icon will also invert the colors, and selecting the first icon will clear the screen. However, it is recommended that you do not use these icons—their operation takes much longer than inverting the colors using the right icon or clearing the screen using the Clear Screen icon.*

To invert the colors in the pattern icons:

- Point to the bottom of the Switch Color icon.
- Press the left button.

COORDINATES BOX

0.9 0.5

The Coordinates box shows the position of the cursor.

The first number is the distance of the cursor from the left edge of the virtual page; the second number is its distance from the top edge of the virtual page.

If the current icon is the Text, Scissors, Eraser, Rotate, Pixels, Grid, or Box icon, the position of the upper-left corner of the cursor appears at the top of the Coordinates box, and the position of the lower-right corner of the cursor appears at the bottom.

The coordinates are normally shown in inches. DP Graphics lets you switch the units off, or switch them between inches and pixels:

To switch the coordinate display off (from inches):

- Point to the Coordinates box, then press the left button.

To switch the coordinate display on (from off):

- Point to the Coordinates box, then press the left button *twice*.

The coordinates reappear when you move the cursor back into the drawing area.

To switch the coordinate display to pixels (from inches):

- Point to the Coordinates box, then press the left button *twice*.

The coordinates reappear when you move the cursor back into the drawing area.

To switch the coordinate display to inches (from pixels):

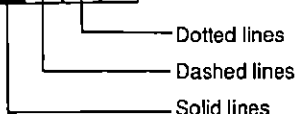
- Point to the Coordinates box, then press the left button.

The coordinates change when you move the cursor back into the drawing area.

LINE STYLE



Use these icons to select the style of lines and of the borders of objects (such as circles and rectangles).



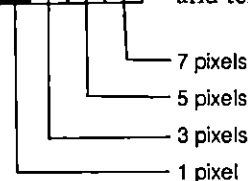
- Point to the icon you want and press either button.

The selected icon is highlighted to indicate the current line style.

LINE WIDTH



Use these icons to select the line width for lines, the borders of objects (such as circles and rectangles), and text characters.

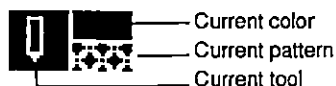


- Point to the icon you want and press either button.

The selected icon is highlighted to indicate the current line width.

STATUS BOX

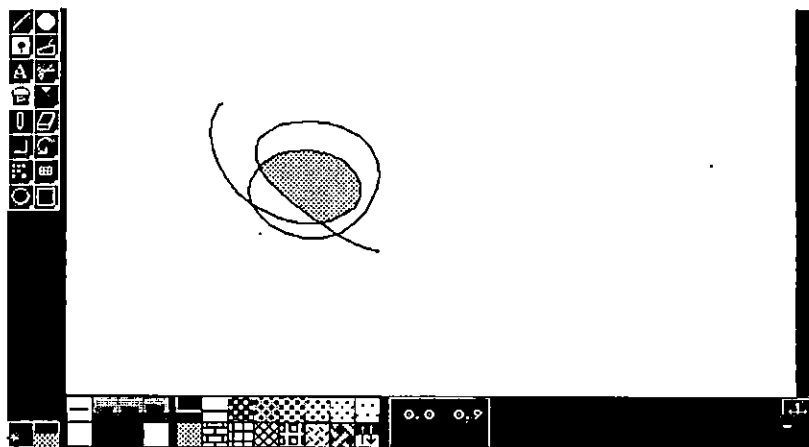
The Status box (located at the lower-left corner of the screen) shows you the icon, color, and pattern that are currently selected.



UNDO

To undo (reverse) the changes you've made using the current tool:

- Point to the left half of the Status box and press either button.
- Press the left button to confirm the undo.



When you use Undo, all changes you've made using the current tool are undone.

Note Here's how Undo works. Every time you select a new drawing tool, DP Graphics saves a copy of the screen (in memory, not on disk). When you use Undo, DP Graphics copies the picture back onto the screen, which in effect "undoes" whatever you've done since you selected the new tool.

Note Using Undo twice does not redo the changes (as it does in PagePerfect).

Note If you have removed the icons from the screen using the Clear Screen icon, you can save a copy of the screen by holding down the Ctrl key and typing B. To use Undo, hold down the Ctrl key and type U.

Note Undo does not work in Virtual Page mode.

Tip! Undo lets you save a picture you're satisfied with while you try making some changes. If you want to make changes without changing to a new tool, just select the tool that's already the

current tool. DP Graphics will save a copy of the screen, so you can keep working using the same tool without the risk of ruining what you've done so far.

VIRTUAL PAGE

DP Graphics' drawing area normally shows a small but highly enlarged portion of a page (1.9 x 1 inch) so that you can draw in fine detail. You can think of the drawing area as a display window through which you can see the whole page. DP Graphics calls the whole page the **virtual page**. The size of the virtual page is 7-3/4 inches by 10-3/4 inches—the area within the margins of an 8-1/2 by 11-inch page.

When you start DP Graphics, it's in **Window mode**. You can see the entire virtual page by switching to **Virtual Page mode**. In this mode, you can do many (but not all) drawing operations directly on the virtual page. Operations in Virtual Page mode require more time than in Window mode; during this time, DP Graphics displays a clock on the screen to let you know it's working.

To work in Virtual Page mode, you use the Virtual Page icon at the lower-right corner of the screen.



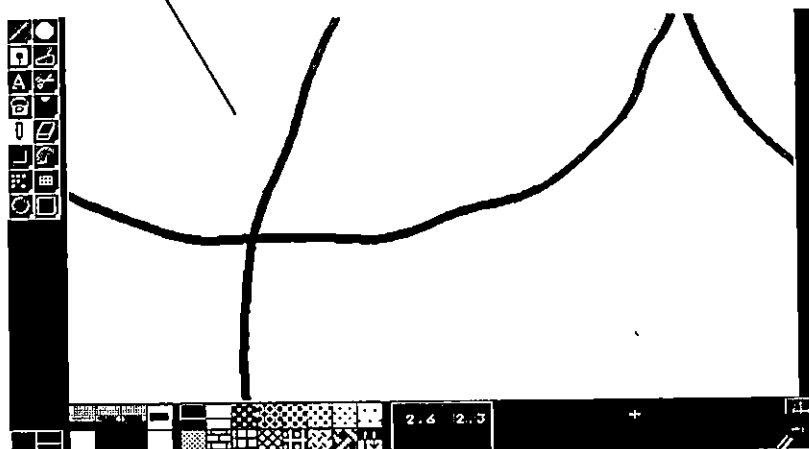
Use the top half of the Virtual Page icon to move the display window around the virtual page.



Use the bottom half of the Virtual Page icon to switch between Window mode and Virtual Page mode, and to see what portion of the virtual page is currently visible in the display window.

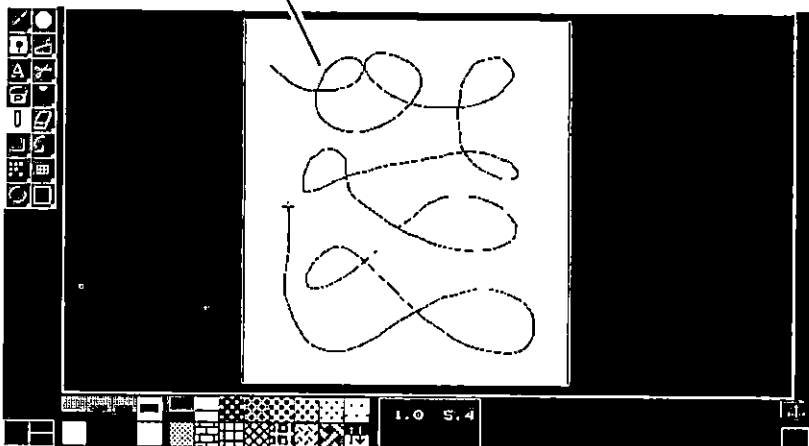
The border of the bottom half of the Virtual Page icon represents the size of the virtual page, and the small white box inside represents the portion that's visible in the display window.

This display window shows just a small piece of a larger picture.



The small white box shows what portion of the page you're seeing.

This is how the virtual page looked when the drawing was made.



The white outline indicates that the window shows the whole virtual page.

To move the display window around the virtual page:

- To move the window continuously, point to the appropriate arrowhead in the top half of the Virtual Page icon, then press and hold the left button.

Since the display window is moving over the virtual page, the virtual page appears to move in the *opposite* direction in the window.

- To move the window in 0.2-inch increments, point to the appropriate arrowhead in the top half of the Virtual Page icon, then press and release the left button.
- To move the window to an edge of the virtual page, point to the appropriate arrowhead in the top half of the Virtual Page icon, then press and release the right button.

To switch from Window mode to Virtual Page mode:

- Point to the bottom half of the Virtual Page icon, then press and release the left button.

DP Graphics switches to Virtual Page mode and displays the virtual page on the screen. To reduce the page to fit on the screen, DP Graphics omits a certain percentage of the pixels that make up

the drawing. Therefore, lines on the virtual page may appear to be broken.

You can see a more “solid” view of the virtual page by changing the **zoom** (the amount the page is reduced to fit on the screen).

To change the virtual page zoom:

- Point to the bottom half of the Virtual Page icon, then press the right button.

DP Graphics opens a control box showing the zooms you can select. The default zoom is 9, which shows a full page on your screen.

- Point to the zoom you want, then press either button.

At smaller zoom numbers, the page is reduced less and so the picture is altered less.

To display a points grid on the virtual page:

- Point to the bottom half of the Virtual Page icon, then press the right button.
- Point to the Grid icon, then press either button.

This grid is handy for aligning text with graphics on the virtual page.

To turn off the display of the points grid, repeat the preceding two steps.

To switch from Virtual Page mode to Window mode:

- Point to the bottom half of the Virtual Page icon, then press the left button.

The pointer takes the shape of the display window. The size of the pointer box represents the size of the display window relative to the size of the virtual page.

- Move the pointer box to the portion of the virtual page you want to see in the display window after you switch back to Window mode, then press either button.

Remember that in Window mode you can see which portion of the virtual page is in the display window by looking at the bottom half of the Virtual Page icon.

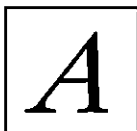
Note *In Virtual Page mode, you can't use the Airbrush or Pixels tools, the Points Grid icon in the Grid tool's control box, or Undo.*

Note *Remember that the display in Virtual Page mode is only a mock-up of the actual page that resides in memory. Since some pixels are omitted, the display will not correspond exactly with the actual virtual page (unless you've selected a zoom of 1). Occasionally, when you're creating an image in Virtual Page mode, some portions of the image will not be displayed, yet they do exist in memory. When in doubt, switch to Window mode and display that particular area of the page.*

In in Virtual Page mode, only the updated portion is changed on the display. Some portions of the image that were not edited may still appear to be changed. Again, if in doubt, switch to Window mode and display that particular area of the page.

In general, you should do all detail editing either in Window mode or (if in Virtual Page mode) with a zoom of 1. The larger zooms are most useful for moving large portions of the page at once.

All circles are drawn in the aspect ratio of the virtual page. Therefore, circles may not appear circular when displayed in the screen window due to the different aspect ratios of the different display devices. However, the circle will be a true circle when printed. See Appendix B for more information about aspect ratios.



In Case of Difficulty

This appendix describes error messages and other symptoms of problems, together with possible explanations and corrective action. If this information is not sufficient to help you correct any difficulty, contact IMSI Product Support at:

International Microcomputer Software, Inc.
1299 Fourth Street
San Rafael, CA 94901
(415) 454-7101

KEYBOARD PROBLEMS

Can't enter text

Can't move cursor

To enter text after using the keyboard to move the cursor, you must first press the Esc key. Likewise, to use the keyboard to move the cursor after entering text, press the Escape key.

SCANNING PROBLEMS

Error Number 22

This error can be caused by either of the following:

- An incorrect code has been sent to the scanner driver. That is, the scanner is waiting for a code to perform an operation, but an incorrect code has been sent.
- The correct code has been sent, but the data received is garbled. In this case, three retries will be allowed to obtain correct data, then transmission is stopped and an error message is sent to the console.

The driver communicates directly to the controller card and uses an ACK/NACK protocol. In both cases a hardware error has occurred and you should power down the scanner as well as the computer and then retry scanning.



About Aspect Ratios

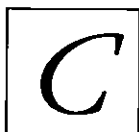


This appendix is provided to help you understand the appearance of objects on the screen.

Aspect ratio refers to the shape of the pixels (dots) on the screen and on the printed page. Your laser printer has a 1.0 aspect ratio, since it prints 300 dots per inch both horizontally and vertically. However, the aspect ratio of objects on your screen is not 1.0.

An understanding of aspect ratios is particularly important when you're drawing circles or entering text. The eye is extremely sensitive to the roundness of circles and the shape of text. DP Graphics corrects the aspect ratio for the display when in Virtual Page mode. In Window mode, however, circles and text will appear deformed since the aspect ratio of the display does not match that of the printer. In Virtual Page mode, you can view the page in the same size as in Window mode by selecting a zoom of 1.

APPENDIX



Text Typefaces



This appendix shows samples of the typefaces you can select for text.

NOTE: All Fonts Shown at 18 Points.

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

ROMAN1

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

CURSIVE

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

GOTHIC

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

ITALIC

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

ROMAN2

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

ROMAN3

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

CENTINAL

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

CENTMED

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

CURSBOLD

αβγδεϛζηκλμνοπρστυωξψζ

ΑΒΗΛΕΦΓΙΑΚΜΝΟΠΘΧΣΤΤΑΩΞΨΖ

Greek

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HAL0201

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HAL0202

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HAL0203

**abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ**

HAL0204

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HAL0205

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HAL0206

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

HAL0207

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

HAL0208



HAL0250 - Flow Chart Symbols

Fixed Size Fonts

Enlarged

Actual Size

A

abcdefghijklmnopqrstuvwxyz
FX8

A

abcdefghijklmnopqrstuvwxyz
FX8B

A

abcdefghijklmnopqrstuvwxyz
FX9

A

abcdefghijklmnopqrstuvwxyz
FX12

A

abcdefghijklmnopqrstuvwxyz
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A

abcdefghijklmnopqrstuvwxyz
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A

abcdefghijklmnopqrstuvwxyz
FX28

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